INVESTMENT BONDS

THEIR ISSUE AND THEIR PLACE IN FINANCE

A BOOK FOR STUDENTS, INVESTORS, AND
PRACTICAL FINANCIERS

BY
FREDERICK LOWNHAUPT

G. P. PUTNAM'S SONS
NEW YORK AND LONDON
The Knickerbocker Press

Fifth Printing

The Knickerbocker Press, New York

PREFACE.

Some months past a prominent banker of this city delivered an address touching largely on Investment Bonds, in the course of which he was requested to mention a work devoted entirely to that subject. The reply was that he knew of no book of this nature and he believed that none existed; and a review of current financial literature confirmed this belief. That incident, together with numerous similar inquiries that have come to the attention of the author, is responsible for the present volume.

Nearly every other branch of finance has received an adequate measure of attention. There are for instance, fully a score of good works on the various aspects of banking and on kindred subjects. It is a singular fact, however, that Investment Bonds, taken as a separate subject, have had scant consideration. The published information at present available on the subject is scarcely more than passing mention in some financial works, one or two small volumes which are little else than reference works, and the advertising pamphlets of banking houses. This material is so scattered as to preclude the possibility of obtaining from it any satisfactory amount of trustworthy information. Only a few, comparatively, such as those whose daily association with this branch of finance affords them opportunity for its study, are in a position to learn of its many phases.

There is indeed a highly technical side to the subject, especially in the mathematics involved, yet there

are many plain facts fundamental to an understanding of the matter that may be expressed in untechnical language and readily understood.

It is essential to any one concerned, whether as a student in the investigation of financial science, as an investor in the determination of the value of a security as an investment, or as an employee in an endeavor to become equipped for greater efficiency, that these facts be known.

The contents of this book have been developed with reference to two principal ideas, that of the relation of the bond to its issuing corporation, and the general investment aspect of the instrument. These central ideas have been developed to treat of classification of issuing corporations and specific issues; process of issue and the practices of negotiation; market, in its extent and general conditions; interest, in its definition, methods, and times of payment; security, in its relationship to various types; default and its effects; reorganization and how accomplished, etc., together with other important features.

Obviously, it is difficult to treat comprehensively such a broad subject within so limited a space; and it is equally difficult to arrange the vast amount of material to the best advantage.

It is the hope of the author, however, that this volume will, in a measure, fill a recognized need.

Acknowledgment is hereby made of the assistance received from friends by criticism and suggestion, and to the investment house of H. H. Copeland & Son for access to their files, documents, statistics, etc.

F. L.

New York City.
September 1, 1908.

CONTENTS

INVESTMENT BONDS

INVESTMENT BONDS

CHAPTER I.

INTRODUCTORY.

THE complexity of modern business, its high specialization, and broad ramifications, necessitate the use of many instruments. Indeed they have become so numerous that it is the expert alone who can make needful distinctions without difficulty. Quite naturally, the opposite is true of thousands moving in a limited sphere of business activity, and of yet a greater host removed from those associations where many of these instruments are met. There is considerable perplexity arising from numbers alone; and yet the difficulty of making proper distinctions is increased by similarity of names. Any attempt at classification is sure to be more or less an enumeration. We have those differing widely in nature and functions, of entirely different classes, each issued in a distinctive manner, and yet serving the ends of business under names similar or identical. Most prominent of these are bonds, about which, perhaps, most confusion arises.

Alone, the term bond has more of legal significance than otherwise. In a correlative position it becomes more definite in application, and in a measure classi-

fies, yet does not assign the particular instrument to a place where its nature and functions are clearly indicated. Most important, from its functions, and most widely known, yet none too well understood, is the financial and investment instrument of this name. Its distinction from other so-called bonds should be fully comprehended.

The majority of real estate transactions are carried out through the use of a bond and an accompanying mortgage especially adapted to requirements. A universal use of this form of bond gives it a position of great importance in the business world and makes a comparison with the investment instrument, the principal subject of our discussion, imperative. Points of similarity in principle exist, although the instruments are essentially unlike in character. Both are, of course, investment instruments; the one always, the other frequently, being accompanied by a mortgage. The real estate bond and mortgage, as here considered, are always kept together, as if but parts of one instrument; the investment bond and its possible accompanying mortgage never. The bond of the first instance is practically an indivisible instrument, covering the full amount of the debt; the investment bond is, in itself, the representation of but a portion of the debt. Large debts of the former type are contracted, however,—so large, in fact, as to be impracticable for a single investment; and by issuing parti-mortgage receipts, an indirect method of accomplishing the end, a divided interest may be made.

In form this type of bond is generally unlike the investment bond in that it may be anything from an ordinary promissory note to a highly engraved certificate with a fuller phraseology. A printed blank, to

be filled up as circumstances require, is in very general use. Again, the bulk of investment bonds gravitate toward financial centres where they go to investors through a great public market, whereas, with the former, private sale predominates.

The great business of suretyship creates a still different and peculiar class of instruments of this name which do not represent an investment. The surety bond is a document binding one, called the principal, for and with another who is primarily liable; it is the obligation of one who engages to answer for another's appearance in court, payment of a debt, performance of an act, fidelity in a position of trust, etc. While this class of bonds is issued in almost infinite variety, covering every conceivable position of trust, and entering into many other business transactions, it may be said to consist, generally, of Probate, Insolvency, Judicial, and Fidelity bonds, the larger part of which business is done by a comparatively small number of surety companies, corporate suretyship being most acceptable.

As to distinctions between investment bonds and various other instruments, principally certificates of stock and various kinds of notes, it is well to note a few facts. Stock of a corporation represents proprietorship, the total amount being the full capital investment by the stockholders in the enterprise. For convenience and mobility it is divided, the standard unit being $100 which is represented by a stock certificate. The term *share* is frequently used to express the same thing. A stockholder's relation to his corporation is that of ownership, having an interest of this nature to the extent of his holdings. He participates in the management to the extent of directing

the policy by his vote, but has no direct voice in an administrative capacity. Corporate stock may be divided into two general classes, preferred and common. As indicated by its name, the former has preference in the distribution of profits or in other ways, while the common is junior in any claims to which the former has been given preference. Where there are no outstanding bonds of a corporation, yet preferred shares, their preferment places them in practically the same relative position as an issue of bonds would be.

Notes, of which there is a great variety as to form and text, differ essentially from bonds in the length of time of the debt. They may run from periods of thirty days to as long as five years; general practice, however, makes them for two years or less. In some particulars, notes of corporations for large amounts are very similar to some kinds of bonds, frequently having like names, such as debenture notes and collateral notes. Considering the element of time, many, to all practical intents, may properly be called short term bonds. In amount they range from the small individual note of perhaps a few dollars to the large paper of the great corporations which is often in units of $100,000. Obviously, only investors of large resources furnish the market for these latter; the large financial houses generally absorbing all such issues. In fact, the principal market for all kinds of notes are the commercial banks and kindred institutions. A corporation having outstanding such an issue is said to have floating debt; a debt contracted under bond issue is funded.

While any instrument representing a debt may properly be called a certificate of indebtedness, there has come into comparatively recent use by some rail-

roads, a special instrument so called. To distinguish it from a bond is to say, generally speaking, it is neither stock nor bond, yet has some of the characteristics of either. Taking a representative issue as an example—Atlantic Coast Line—it has, like most bonds, special security, and like stock, voting power. Practically it is a combination of the features of stock and some bonds and may be said to represent no new idea or involve any special principle of financing.

As it is to-day, the investment bond is somewhat the product of evolution, not so much in language of text as in physical features. The principle involved is many years old and the language of the contract is hardly less; with a few minor changes the expression of the obligation is practically what it was more than fifty years ago. Just when the instrument was first called bond is not clearly established but similar documents of other names and performing much the same functions were in use as long as one hundred and fifty years ago. With the development of corporate enterprise the bond has become a prominent factor in that field; earlier than twenty-five years ago it was most prominent in federal and municipal finance.

Thus it is seen that from its genesis the bond has been peculiarly a corporation instrument which suggests a most natural inquiry as to why an individual or partnership could not make an issue of bonds to advantage. While there is no prohibition whatever of such a course, there are a number of obstacles in the way of success. The final and most essential act in the issuing of bonds is to find a market in which to convert them into cash, and the difficulty of accomplishing this is the chief stumbling block to any other than corporate issues. The market reflects the world's

judgment; and this judgment, already pronounced, is that the value of a contract of an individual, to deliver money so far off as fifteen or twenty years, is uncertain. For a period of a few weeks or months the world may be reasonably sure of his position and integrity; but the vicissitudes of life and business do not warrant a judgment of the future beyond. Inability, therefore, to find a market for long term bonds necessitates the use of notes, commonly called commercial paper, or some other method of obtaining funds.

Many of the uncertainties about the future of an individual in business are common to partnerships. They have, in rare instances, issued bonds but a broad attempt to do so would be unsuccessful. The possibilities of failure and dissolution, or of termination by some other of a number of conditions which could bring it about, makes the use of notes likewise largely incumbent on partnerships.

Coming to corporations, we find an absence of most of these features. They do issue notes largely, but it is generally exigencies of the moment that demand such action. A corporation well founded usually lives on perpetually, is not affected by deaths, does not feel the burdens of depressions in business as do individuals and partnerships and is little liable to failure and dissolution. Under such conditions it is manifestly possible to issue long term obligations and to find a favorable market. Moreover, the plan and scope of business in corporate form necessitates a more permanent use of funds than can be obtained through notes, hence the issue of bonds.

In its legal aspects the investment bond presents a practically limitless field for investigation and study in both extent and interest. In its general classifica-

tion, it comes under the head of contracts, being a formal writing sealed and delivered, which contains an agreement setting forth terms and conditions and which serves as a proof of an obligation. From this viewpoint the chief characteristic of an investment bond is that it is a conditional contract; but requiring future action by one party only, this action being the payment of a certain amount of money and the party being the issuing corporation.

In a further legal classification it falls in the category of negotiable instruments. Generally speaking, it is negotiable paper, transferable by sale or delivery and endorsement. This must be qualified, however, as not all bonds are transferable by sale and delivery. The technical designation of those that pass by delivery is coupon bond. The others are known as registered bonds, which, to be negotiable, must bear the owner's endorsement. This constitutes a contract of assignment. Their designation indicates the necessity of a written account or entry to complete the process of negotiation.

From a financial viewpoint, bonds are in effect promissory notes, differing of course, from that specific instrument, as already stated, in the matter of length of life. Alike, however, they must be cancelled by payment or the debt must be satisfied in some other way. The bond is generally a direct obligation of the issuing corporation, and a credit obligation representing or being secured by a lien. It has been shown that the stockholder's interest in a corporation is proprietary —he is at least a partial owner; the management of the business is conducted indirectly by him. His claim is on the profits of business after all expenses have been met and is therefore indefinite in amount and

contingent in nature. While the company remains solvent his claim is to dividends, a claim which is unenforceable by process of law. His contribution to the business is made with no contract for its repayment nor any increment, and his interest, as of a partner, is to bring his company to a position of greatest efficiency and largest earning power to make the payment of dividends expedient. A bondholder's position is vitally different. The obligation he holds is a contract binding the company to pay a certain amount of money, defining him therefore as a creditor, with no interest in the company save the desire to see it so conducted as to be able to meet its obligations. Consequently, he has no voting power to direct the management. As a general statement, this last is true, except in special instances of which, however, there are few. The bondholder's claim is absolute and he generally has security for the payment of his contract. Priority of his claim on income, therefore, generally enables him to take action if the company is delinquent, while a greater prosperity of the company does not affect him since he is entitled to a definite amount only.

The exact purposes for which bonds are issued are varied and numerous. Every corporation has its particular and peculiar needs. One organized primarily for private gain issues bonds and the funds obtained by this method are called capital. The corporation existing solely for public welfare issues bonds also, but these funds are not called capital, although corresponding practically to what is known as working capital in commercial operations. Considering largely the former kind of corporation in a treatise of this nature, it may be broadly stated that bonds are issued for capitalization purposes. To be exact, the capital

of a company is only those funds obtained through stock issue but since conditions have brought about the floating of such large and varied amounts of bonds, they are now fully recognized as part of capital. Indeed, whole properties have been produced by bond issues alone.

Capitalization by bond issues, while not distinctively an American practice, reaches here its broadest development. Taking the capitalization of railroads as embodying many principles of finance we find, for example, a striking dissimilarity between English and American methods. The English policy aims to provide most improvements through stock issue; the American policy through bond issue. In scope, American railway financing is very broad and provides our railways with resources not only to improve and better their properties, but enables them to reach out and acquire additional properties. What may be said of railways on this point is true in large measure of manufacturing corporations; original and new construction, improvements and acquisition of additional properties by stock control or otherwise, are primarily the purpose of their bond issues. Consolidation and extension, so largely effected through bond issue, generally enables a more efficient and profitable operation.

Municipalities and governments may issue bonds for general and specific purposes many of which are well known. Sometimes, when the ordinary expenditures of the Government exceed its income for a protracted period, an issue of short term bonds may be made so as to obviate the necessity of heavy taxation. Public works, both government and municipal, are nearly always financed in this way. The expediency of issuing bonds sometimes involves a basic principle

of finance, especially in the initial capitalization of a corporation. At other times, the advisability of this method of obtaining funds is determined solely by conditions. Business conditions, the credit of the company, the disposition of the stockholders and management are all elements affecting. Whether to incur a floating debt, make a new stock issue or shoulder a bond issue must be carefully considered. More stock may mean a more scattered ownership with the possibility of loss of control by certain interests, and the distribution of future profits among a larger number (assuming that the original stockholders could not take up the issue)—it may mean the returns would be irregular inasmuch as shares, because of their instability generally, often do not commend themselves to investors as highly as bonds; a note issue may mean a high interest rate, of course, for a comparatively short time, but with possible expenses of renewal and discounts; a bond issue may mean an interest charge for a considerable period of years to the extent of endangering dividends but it may also mean a good return and a greater earning power: all these things are kept in mind when the question of increased capitalization is considered. The proceeds of notes, however, are not considered as capital. After a company has determined upon an issue of bonds, it has still another problem to solve—the kind of bond to put out. In its solution the potent factors are largely external conditions. Nevertheless, everything must be considered. While municipal and government financial operations are not affected by personal considerations, they too must be conducted with due regard for conditions. A state of depressed municipal credit, for instance, would be an unpropitious time for a bond issue of that nature.

It is interesting to glance at the figures showing the aggregate and comparative amounts of bond obligations outstanding. Staggering as they are they tell but a part truth. To arrive at anything more than an approximation of some of these figures is impossible for a number of reasons. The absence of public record precludes accuracy for statistical purposes; and no such record is obtainable of many millions of bonds that are put out each year, for the reason that they are never put on public sale; they pass directly from the issuing company to investors closely associated with it. Where this occurs the issuing company is usually comparatively small. The larger corporations, as a rule, bring their securities into the public market.

There is an index, however, to the trend and extent of bond issue—the great Exchanges of the country. Through these passes the greater part of the bonds issued by manufacturing and railroad corporations and the Government, but not of municipalities. Nearly ninety per cent. of municipal bonds never reach the Exchanges, passing to investors over the counters of brokers and bankers. By a study of the bonded indebtedness of the thousands of municipalities of the country, it will readily be seen that Stock Exchange figures are far from complete. The item of municipal bonds in the security markets is very large and important and the aggregate is probably even greater than the entire Government debt. These facts must ever be kept in mind in reading published statistics.

In recent years there has been a large increase in bond issue and the aggregate figures available show a large amount in excess of stock issues. On the three hundred thousand miles of railways in the United States there is approximately a funded debt of eight

billions of dollars. Statistics indicate that the railroads produce about sixty per cent. of the bonds accounted for, while the remaining forty per cent. is approximately divided, ten per cent. for industrials, ten per cent. for Government, and twenty per cent. for municipal bonds. The figures of the New York Stock Exchange show that the railroads produce the bulk of the bonds listed there and these railroads are practically all parts of about twelve great systems. They also show that the increase in bond issue during the year of 1905 was fully fifty per cent. more than either of the two previous years, the figures for 1905 being $643,396,000. This total for 1905 was exceeded by only three other years during the past twenty, namely, 1890, 1898, and 1901. The average amount for the past twenty years is practically $483,000,000 and for the past ten years $583,000,000. The year 1901 gives a total of something over $923,000,000 which, however, cannot be fairly considered in the calculation as it is misleading; in that year the great United States Steel Corporation was organized and many securities were issued to replace old securities of companies taken over. During the year 1904, the total of bonds issued was nearly four times as great as stocks for the same year.

It would be natural to suppose that coming from so many sources there is great diversity in the makeup and processes of issue and negotiation of bonds. This, however, is not the case. Multitudinous and varied as are the uses of funds obtained thus, there is nevertheless a marked uniformity in general practice with respect to the instrument. Much the same general principles and conditions govern in all cases. Whether it be an issue by some great railroad or some small

industrial corporation; a funding operation by some great government or for a small rural school district; a five hundred million dollar issue or one of ten thousand dollars, certain things are obligatory and others expedient if ultimate success is to be obtained. The methods employed in funding operations, great and small, vary not a great deal in principle. A large measure of uniformity has become a practical necessity. Considerations of safety, success in marketing and high return are all great factors in bond issue.

CHAPTER II.

CLASSIFICATION.

American financiers have often been under necessity of producing a security with new and attractive features. At times distinctive and peculiar conditions have had to be met. With characteristic ingenuity they have usually succeeded, in consequence of which there is now a diversity of securities that quite demand close study for a full appreciation of their scope and nature. Great corporate needs have produced volume, coincident with which have been developed two characteristics of the bond branch of the security market, variety and novelty. The average investor is perplexed to distinguish various issues so he may make a conservative judgment. He is not alone. Many another, though familiar with finance, is nonplussed to make a clear and comprehensive classification. Some difficulty arises from difference of name where the issues are identical with the exception of some unimportant feature. When the chief characteristic or some distinctive feature is taken as a basis, the task is comparatively easy; but beyond such general distinctions classification becomes somewhat involved. Several are used by financial writers, differing in detail yet built upon practically the same foundation. All are essentially correct. Indeed it is impossible to

make an arrangement of bonds admitting of no variation.

The most general is to group them under one or the other of two heads, namely, Mortgage and Debenture bonds. Enlarging somewhat upon this they are grouped as Mortgage, Equipment, Land Grant, Collateral Trust, Prior Lien, Debenture and Income, which is about the greatest number of general groups practicable; a finer division immediately emphasizes distinctions of individual issues. From a market point of view solely, bonds and funded investments are often put into three divisions, railway, industrial, and miscellaneous. From this same point of view, under miscellaneous bonds are included industrial issues and so making this division to consist of issues of foreign governments, public service corporations and industrial companies. The present classification proceeds differently by presenting the bonds arranged under corporate groups and then considering the individual issues.

Before discussing the bonds it is expedient to consider the issuing corporations, with a brief inquiry into their nature and classification. Though not prerequisite to an understanding of the subject such general knowledge contributes measurably toward a clear conception of the nature and functions of the various bonds. It is important to know in what division each corporation lies and in a general way what types of bonds it issues.

Of corporations there are three kinds: Public, Quasi-Public, and Private, their names indicating, in a measure, their functions. The public corporation, very generally called municipal, is a political division empowered by law to do such acts as are necessary for

the well being and advancement of the commonwealth; its particular functions are many and it is conducted for no gain save the public good; its operations are limited to the territory over which it has jurisdiction and its officers are largely elected by its citizens. Municipal corporations are classified by law, generally according to population and assessed valuation, and their powers are defined according to class. Cities and counties are representative examples. The private corporation is exactly the opposite; it is formed for pecuniary gain and its activities may be universal; it gets its being and powers from the law, and, when not violating its provisions, is not amenable in any sense. In organization and operation it is entirely different from the public corporation and is typified in a manufacturing company. Quasi-public corporations partake of the nature of both public and private, though in law they are considered as of the latter kind. Their services, nevertheless, are essentially public—hence the classification. Formed primarily for private gain, they have rights that are strictly private and beyond legislative control, yet they may be subjected to considerable regulation by State and Federal authorities. The steam railroads and public service corporations fall in this category. Of those corporations other than public, there are many whose status is not yet clearly and finally defined since authorities on the subject are divided. The best legal minds are far from unanimous on the identity of some corporations in so far as it is fixed by their functions. Whether these functions are private or quasi-public is a mooted question. With this as a safe basis, investment bonds may be classified first by two great general divisions, putting into one those issued by public corporations and for

the other those issued by private and quasi-public corporations.

Considering these general divisions, in the first we find three classes under which may be grouped, however designated by name, all of such securities issued by public corporations. Every municipality is under the necessity of maintaining public works and making improvements, such as building of bridges, sewers, and waterworks to finance which it is generally necessary to issue bonds. Part of this funded debt is often known as corporate stock which is only those long term bonds issued for permanent improvements in distinction to the assessment bonds issued to provide funds for all work done by contract, the expense of which is to be collected by assessment from property benefitted by the work. Likewise every State has similar duties; additional highways may be needed—a canal may be demanded by business conditions—the requirements for educational purposes may be enlarging, for all of which, after the proper legislative authorization, the funds are usually provided by an issue of bonds.

Municipal

State

The Federal Government too, has many matters to look after. Its duties are all public, of course, but their scope is much broader. It must finance such projects as are authorized by proper legislation. Building a canal such as the Panama, for instance, would generally be financed by bond issue, as would the prosecution of a war. The general acceptation of the term—Municipal—as applied to bonds, contemplates those minor civil divisions smaller than a State although, strictly speaking, all public corporations are municipal.

Federal Government

In the second general division, private and quasi-

public corporations, there are a greater number of classes. Every progressive manufacturing company has need for new capital from time to time; growth of business means enlargement of plant or acquirement of other plants. To finance these operations, in part at least, bond issues are often made. Consolidation and extension of the great net work of steam railways throughout this country produces great amounts of bonds; the railways unceasingly increase their mileage and improve their facilities. Numerous traction lines, which operate largely in cities, also produce a considerable amount of bonds. The marvellous development of electric motive power has given a great stimulus to this form of enterprise, and much of the necessary capital is obtained through bond issue. Another source from which many bonds are put into the market are public service corporations. The rapid growth of the country necessitates installation of public utilities everywhere, and accordingly new water works are built, new gas, electric, and power plants are constructed and telephone facilities extended. The call for funds in this direction is largely met by issue of this kind of security. Still other bonds, although comparatively few, are placed on the market—those issued by navigation lines whose needs are similar to those of other transportation companies in the way of new equipment, new and larger terminals, etc., and which are provided to some extent by bond issues.

Industrial

Railroad and Traction

Public Service

Considering issues individually, some are found to be the natural product of the growth of corporations. Any corporation may issue a type of improvement bond to finance specific or general permanent improvements

and if there is definite security, a condition wholly dependent upon the kind of corporation, it generally takes the form of an encumbrance on the property benefited. The railroads are practically alone in issue of what are known as extension and construction bonds, both of which finance the building of new trackage, and are usually secured by a first mortgage on the property created; their issue is progressive with the work. Again railroads often buy up other railroad properties and sometimes need more land for terminals. An issue of purchase money bonds may be made, secured by a lien on the property obtained. This acquired property may have a debt, and where such is the case, the purchaser usually provides for it. However, this is not exclusively a railroad type although practically all of this name have come from that source. It is frequently necessary for a railroad to increase the number of its cars to care for growing business, and there may be no other available means of obtaining necessary funds save through an issue of "Car-Trust" or equipment bonds. Strictly speaking, a "Car-Trust" bond (or certificate, as it is sometimes known), is an obligation issued by a concern known as a car trust. Its security is the cars, which have been purchased from a manufacturing company and rented to a railroad company until full payment is made, periodical payments being provided for, which go to make payments on the bonds. The equipment obligation differs in that it is not issued by a car trust and is somewhat broader in scope, including, as it may, locomotives, boats, etc. This distinction should be remembered for yet another reason,

Improvement

Extension and Construction

Purchase Money

"Car-Trust" and Equipment

and that is, that equipment bonds are not necessarily railroad issues: a manufacturing company may, quite as well, put out such bonds to purchase machinery and equipment.

Founders

A bond rarely used in this country but quite well known abroad is termed founders. It is generally given to the promoters of an enterprise in the nature of a bonus in a similar manner that stock is given in this country. Technically, it may be considered more as stock than as a bond though it is often designated by the latter term. Accompanying the universal tendency toward corporate consolidation has come the necessity of bond issues adapted to this condition.

General Mortgage

To this end we have such securities as general mortgage bonds which may be issued by any corporation other than public and are generally secured by a lien on the property in its entirety. In scattered instances they constitute a first lien; but are generally subject to some prior liens. Akin to this are consolidated and "Blanket" Mortgage bonds.

Consolidated and "Blanket" Mortgage

The former usually puts a new security on an entire group of properties already fully covered individually and while therefore secured by a mortgage on all the properties, this lien too is generally subject to some of prior right. Scarcely any distinction is to be made between the so-called "Blanket" mortgage bond and the two others just mentioned. The term is generic in its significance and whenever used, which is seldom, is little else than synonymous—it may aptly describe either of the others. In the issue of such comprehensive mortgages provision is almost invariably made for refunding other issues as they mature, these issues being much smaller

and generally a prior lien and being provided for by an arrangement for their exchange for the proper amount of the larger issue. Very frequently, however, issues are made specifically designed for the purpose of refunding, which gives the name to a very large amount of bonds at present in the market. Any kind of a corporation may issue these, which are essentially a continuation of a former debt beyond its maturity. When the maturing bond is not retired in exchange for a proportionate amount of the new issue, it is cancelled and payment made through sale of part of the issue. Refunding issues are generally as well secured as the bonds they retire.

Refunding

A few corporations, mostly railroads, have found it expedient to consolidate much of their funded debt, covering it by only one issue of bonds known as unified. In this way a simplification is accomplished by uniting under a single issue a mass of miscellaneous obligations. The advantages to be derived from this procedure are not a few. One is increased facility of management of the debt—another, the generally better market which the new security enjoys over those it displaces. The whole operation is indeed in most respects analogous to refunding. What differences exist are unimportant.

Unified

The rehabilitation of many corporations, through rearrangement of their finances, before or after a critical point was reached, evolved a number of types peculiar to such conditions. Rehabilitation after this manner was in every instance a form of reorganization out of which came such bonds as reorganization lien. The characteristics of these issues grew out of the attending circumstances and they were generally vested with only a

Reorganization Lien

junior lien on the property reorganized. But as reorganization of a company means settlement of the claims of the various interested parties on a satisfactory basis, there has been issued occasionally a form of

Adjustment

bond in many respects similar to the last mentioned and called adjustment. Always an outgrowth of such conditions, its features have been determined accordingly. In this way additional capital for improvements has been realized, while a lien, only junior in its preferment, has been given. An excellent example of this type of security is the Atchison, Topeka & Santa Fé four per cent. adjustment issue, growing out of reorganization of that road in 1896. The success of a reorganization plan is generally dependent upon the ability to secure additional funds. So to insure

Prior Lien

this, it has sometimes been necessary to give a preferential claim to those providing the funds. A Prior Lien bond has therefore been issued. Practically all such issues are railroad obligations secured by mortgage but are not always, as might naturally be supposed, the first obligation of the issuing company. The name is but a relative term and may mean no more than that the bond is prior to some other specified issue. As mortgages covering Prior Lien bonds are usually general in character, embracing much property, they are, like all such, subject to other liens. The distinction therefore, between *Prior Lien* bonds and those having a *prior lien* is to be marked. The Erie Railroad, among others, has a representative Prior Lien issue.

Insolvency and reorganization produce still another bond. At such times concessions are required of some security holders, and for the compensation of those making the sacrifice there is issued the income bond.

With few exceptions, this has been its origin; it is, however, fast disappearing from the lists. Briefly stated, it is an obligation the interest on which is payable out of net earnings after all fixed charges have been met. Interest, therefore, is contingent, being entirely dependent upon the earnings of the company and still further uncertain, in that it is payable or not in the discretion of the management. Sometimes it is cumulative, standing as a charge ahead of all dividends on the stock. Generally such bonds are mortgage secured as to principal and are always a junior lien.

Income

The status of an income bond may be changed by agreement. Absorption of a small line of railway by a great system usually brings about a modification of the securities of the former; the larger company may wish to withdraw certain issues, for which privilege it makes attractive offers to the holders. In the case of the assented income bond a fixed and regular interest return is assured where formerly it was contingent. For this the company is given some privilege, say perhaps to retire them before maturity at a stipulated price. Concurrence of the bondholders in such an arrangement gives rise to the name.

Assented Income

A type of bond which came into prominence and favor within the past few years but whose popularity is now waning, is that which depends for its safety entirely or almost entirely upon the pledge of other securities usually taken from the treasury of the issuing company or system and placed in trust, under the terms of the collateral mortgage, to secure payment of principal and interest. These securities may consist wholly or in part of stocks

Collateral Trust

or bonds, and are generally the obligations of auxiliary companies. Up to about the year 1900, bonds were extensively used as security and nearly all of first and second mortgage; subsequently, deposit of stock only became the general practice. Under variously named issues, practically all of the railways and many other corporations report large collateral trust mortgages. Many such issues have found their source in the holding company, a corporation having no independent credit and usually operating no properties and whose assets consist largely of stocks and bonds of other companies. In fact, this, with but one other kind, the debenture, is the only bond obligation such a company can issue. A large number of companies are both holding and operating, when of course, they may issue any kind. Typical examples of a purely holding company were to be found in the Northern Securities Company and the United States Steel Corporation when it was first organized. At present, the United States Steel Corporation, Pennsylvania Railroad, and Union Pacific Railroad are excellent examples of companies both holding and operating.

What may be a collateral trust obligation (though it may be any other) is the joint bond; as such it was

Joint

exemplified in the Great Northern-Northern Pacific Joint 4's issued in 1901 and secured by deposit of Chicago, Burlington & Quincy Railroad stock. Taking this as representative, it is a security issued by two or more companies, (usually two) each company being liable for its proportion of the bonds, both principal and interest. Provision is usually made that should either company default in its obligations, the company not defaulting shall become owner of the entire property and shall become

liable in severalty upon all covenants contained in the bonds.

Past success in the flotation of some large blocks of collateral trust bonds may be attributed to one or more special features embodied. An expedient that has been used is permission to share beyond the regular fixed rate of interest in profits that might accrue under certain conditions. The arrangement as generally carried out allows participation to a specified proportion in any increased dividend that may be declared on the underlying stock collateral. A notable example was the Oregon Short Line R. R. 4's issued in 1902. Another bond that enjoys the possibility of larger return through increased income or profits on underlying collateral is that known as profit sharing. The form is very seldom used, the best known issue being that of the London Underground Electric Railways. Its security lies in deposit of stock as a basis, which stock is deposited at a certain price, the provisions of the mortgage permitting its sale when the market assures a profit, the sale price of course being above that at which the stock was deposited as collateral. In the event of disposition of the stock prior to the due date of the bonds the holders share in the profits realized from such sale.

Participating

Profit Sharing

The convertible bond is the embodiment of another idea involving profit-sharing provisions. Very frequently a corporation cannot issue stock to advantage as a means of obtaining funds for its needs and is therefore restricted to some method entailing pledge of its property or credit. Prevailing conditions may hold out large promises of success for an issue of convertible bonds as the only type

Convertible

exactly filling the requirements of the situation. This privilege of conversion, the feature of this type, is incorporated in the mortgage and allows the holder to convert his security into some other form of obligation, usually stock, within a specified time and at a specified rate. What may become the source of profit is the possible high market price on the stock at the time the privilege is exercised. By then exchanging the bonds for stock and turning that into the market a substantial profit could be realized. A high quotation for the stock substantially indicates sound business conditions and increased profits in which the convertible bond holder is thus privileged to share.

Most bonds run for a definite period of time; that is, they are intended to live out their allotted number of years. Among those otherwise designed are some subject to repurchase by the issuing corporation within a specified time or at a certain date. To accomplish this a certain amount of money is set aside—more often annually—to retire the bonds at that time. It is customary with many municipal and public service corporations and also with nearly all companies whose assets are gradually depleted by the operations of business to follow this plan, thus establishing what is known as a Sinking fund. All bonds that may be retired in that way are so called. Sinking fund bonds of all but public corporations are generally protected by a mortgage, which contains, if the bond itself does not, the provisions relative to the operation. When bonds are subject to a sinking fund, or liable to be retired at the option of the maker, they are said to be redeemable.

Sinking Fund Redeemable

In contradistinction to those so affected are some whose life is practically interminable, sometimes re-

ferred to as perpetual bonds. Very seldom issued, they are an obligation whose retirement is not provided for by any specified date of maturity. Ordinarily this would necessitate purchase in the open market or refunding should it be desirable to retire them. This is true, of course, so long as all proper conditions exist. Should default in interest occur, the principal, which is mortgage secured where not a public corporation obligation, becomes instantly due. The same principle is worked out in all essential particulars in the annuity bond whose chief characteristic is obviously perpetuity. Of this last type very few companies have any outstanding, those most prominent being the Long Island Railroad and Lehigh Valley Railroad issues. As for irredeemable bonds as a class they are not numerous. Several of the States—Kentucky for one—have small amounts and about an equal number of railroad corporations have a few. Further examples may be found in British Consols and the Rentes of France and other foreign countries, though they differ fundamentally from American issues. In those countries no paper evidence of debt is issued, a mere record of the obligation being considered sufficient.

Irredeemable, Perpetual, Annuity

Under property classification, bonds become subject to the laws imposing taxation. But not all. Those released from such liability are thereby given a prominent and desirable feature and enjoying this privilege are called exempt. But the term exempt is used in another sense—to indicate immunity from call for sinking fund purposes. This fact is peculiar to a few issues at present in the market; a portion only is subject to retirement by such a fund and that part which may be so

Exempt, Non-exempt.

retired is specially designated as non-exempt. Again, there are bonds whose life might be uncertain and their value unstable were they to remain under the same conditions as issued. Indeed it may be imperative through reorganization or otherwise that the force of the obligation be lessened and its terms modified; or again, new or different privileges may be granted to the holders of an issue, or some mutual agreement may be made involving a change of conditions, such as the reduction of interest or the insertion of the call privilege. The record of such changed conditions is usually stamped upon the bond and thereby becomes a part of the instrument. Of course, any bond may be so treated and would then have this additional qualifier, *stamped*.

Stamped

One of the conditions frequently included in a bond contract is that of guarantee, where payment of either principal or interest or both is assured by the promise of another corporation. It accepts the liability, contingently, as the case may be, and consequently enhances in a greater or less degree the value of the obligation as an investment. These bonds are frequently spoken of as *endorsed*, inasmuch as the guarantee is quite generally given by endorsing the instrument to that effect.

Guaranteed, Endorsed.

For the purpose of classification, the subsidy bond may justly be considered as a guaranteed obligation. Here, by pledging itself to pay the interest on bonds issued for construction purposes, a Government assists in establishment and support of an enterprise deemed advantageous to the public. Or else, what amounts to a subsidy, it gives special rights, powers, and privileges, and perhaps the enjoyment of absolute or conditional immunity from taxation.

Subsidy

Formerly municipalities and states subsidized largely, in one form or another, but it is no longer practicable, and indeed it is generally impossible for them to do so. Notwithstanding this, in one or two states municipal aid may yet be extended by legislative authority in exempting from taxation or by endorsing or issuing bonds in the case of gas works, water works, railroads, etc. Thirty years ago these practices were widely prevalent in the United States, principally in support and encouragement of railroad building. Foreign governments still employ this means of promoting undertakings. Subsidizing, however, does not always take the form of payment of interest or principal or the bestowal of prerogatives. Building of the great transcontinental lines of this country was made possible, at the time they were laid down, by substantial gifts of public land from the Government. Bonds were issued to raise funds for construction, and the lands were pledged under a mortgage for their redemption. These lands were gradually sold and the proceeds applied to pay interest on these bonds and to form a sinking fund to retire them eventually. Most of these bonds have been withdrawn and as the public domain is not now large and the roads originally benefited are practically in a position to take care of their financial needs without governmental assistance, this type of obligation will soon be extinct. Thus it is that land grant bonds are distinctively railroad issues. Beyond these gifts of land the Federal Government rendered no material aid to roads except in very few instances.

Land Grant

Scarcely less distinctive as a railroad bond is that form of obligation secured by mortgage on terminal property and usually given by a terminal company.

The stock of such a company is generally held by a road or association of roads having common terminal facilities and known as a Terminal Company. Provision for principal and interest is made by payments of rental by each company. This is the general practice although railway companies as such have issued terminal bonds, their interest becoming a proper charge on the revenues of the company.

Terminal

The integral parts of nearly all great railroad systems bear separate mortgages which were placed upon them before their consolidation. These parts are designated as divisions, and the bonds issued for their account are secured by a lien on the respective part only. The obligation, however, is that of the parent company, the term merely indicating that the security given is some specific division of the property.

Divisional

Extremes meet when we consider the purely first mortgage bond and the debenture, the characteristic of the former being its absolute priority of lien. A bond that may rightfully be called first mortgage is, in fact, not subject to any other liens, its security being a mortgage to which all others are subsequent. Strictly speaking, any such bonds should be protected by a mortgage senior in position on all the property denominated, yet in practice the underlying mortgage has sometimes been made first on only a portion of the property. There have been also second, third, fourth, and fifth mortgage bonds, all, of course, respectively junior in their lien, but they have passed out of favor to an extent that any beyond second are practically unknown now. Complete absence of representative physical security in so far as a mortgage is concerned is the dominant characteristic of the deben-

1-2-3-4-5 Mortgage

ture bond. In reality it differs little from a promissory note being generally a simple promise to pay. In effect it is a very formal note. It is generally a last claim on the properties of the issuing company and is inferior to all other of its bonds. Obviously none but corporations of a high character and whose status is well defined can successfully issue this type. The term debenture means debt. Under this broad interpretation other obligations are sometimes so called. Principal among these are some bonds issued by municipalities in Canada. The debenture is an idea characteristically English and one that may be said to have been borrowed by some of the larger and stronger corporations of this country. A few railroad corporations have outstanding what are known as "plain" bonds which are nothing more or less than debentures having likewise no mortgage security.

Debenture

From the foregoing, a relationship, more or less near, between the character of a bond and its name, is evident. With some it is very close, the name indicating clearly the nature of the obligation; with others but vaguely explanatory, conveying only a meagre idea of its nature. At best a name is no more than a descriptive term or combination of terms qualifying each other, any one of which may represent the chief feature of a bond. With accumulating issues on a property it is often difficult to name suitably a new one so as to make it fully expressive; hence the necessity of long, often confusing and sometimes apparently conflicting combinations. The name, however, is not always the result of circumstances of this nature. It would not be without precedent should sinister motives actuate a company in describing a proposed bond issue. Certain terms of course are technically admissible in names;

yet this has sometimes been presumed upon to an extent actually misleading. While some names are indeed adequately descriptive, mere titles, often signifying only part, mean little from the viewpoint of investment. Every issue must be studied carefully and examined on its own merits.

In the title of almost every bond one term at least is an index of its nature. For example, names like assessment, tax relief, and the like instantly indicate municipal issues; we know at a glance the class of the issuing corporation. The relative position of a bond issue is a matter of vital importance. To some extent this is shown in names. Again, the specific purpose of issue is many times embodied in the name; special features and unusual privileges are betokened and nearly always there is evidence of the presence and nature or the absence of security.

The subjoined classification, number two, proceeding along this line shows in a general way the bonds whose names indicate their function, security or its absence, security and function, maturity conditions and conditions existing during life. The other tabular form follows the text early in this chapter, beginning with the great classes of corporations, considering the various kinds of corporations in each class and the different types of bonds issued by each. Both these classifications admit of many variations, but in the main they present the numerous issues corresponding closely to common practice. Having considered the component terms of names, it is interesting to note the variety of combinations wrought out:

First Lien and Collateral Trust
First Mortgage and Collateral Trust

First Consolidated Mortgage
First Lien and Consolidated
First Refunding Mortgage
First and Refunding
First Extension Mortgage
First and Collateral
First Lien and Convertible
First Lien and Refunding
First General Mortgage
First Mortgage Extension
General First Mortgage
General Refunding Mortgage
General Lien Railway and Land Grant
General Second Mortgage
General Third Mortgage
General Lien Divisional First Mortgage
General and Refunding Mortgage
General Consolidated and First Mortgage
Railroad and Land Grant General First Mortgage
Prior Lien Railway and Land Grant
Refunding and Extension
Collateral Trust and First Lien
Consolidated First and Collateral Trust
Refunding and Improvement
Consolidated First and Extension

No. 1.

Public	Municipal State Federal Gov't.	Refunding Sinking Fund Improvement, etc.
Quasi-Public	Railroad Public Service Traction	Purchase Money Refunding Improvement Extension Construction Adjustment Unified Reorganization Lien Consolidated Mortgage 1st, 2nd, 3rd, Mortgage General Mortgage Divisional Collateral Trust Debenture Sinking Fund Income Terminal Land Grant Real Estate Prior Lien Joint Car Trust Irredeemable Assented Income Annuity Convertible Participating Profit Sharing
Private	Industrial and Others	Debenture Construction Consolidated Mortgage 1st Mortgage General Mortgage Collateral Trust Income Equipment Sinking Fund Convertible Founders Real Estate

No. 2.

Function	Purchase Money Refunding Improvement Extension Construction Adjustment Unified Reorganization Lien Consolidated Mortgage Subsidy
Security (as to principal or interest or both)	1st Mortgage 2nd Mortgage 3rd Mortgage General Mortgage Divisional Guaranteed or Endorsed Collateral Trust Debenture Income Terminal Land Grant Real Estate Prior Lien Joint
Security and Function	Car Trust Equipment
Maturity Conditions	Redeemable Irredeemable Profit Sharing Non-Exempt Assented Income Annuity
Conditions during Life	Convertible Stamped Exempt Participating

CHAPTER III.

DENOMINATIONS.

THE range of bond denominations is surprisingly wide. Since the average American investor carries in his portfolio denominations more or less standard in amount, doubtless comparatively few are aware that obligations of this nature may be purchased in units so small as to be within the resources of even the very small investor. General public records in the financial pages of the newspapers impart little or no knowledge on this point. The market quotations there recorded are as of a standard amount whatever the denominations may be.

The greatest number of denominations with the widest variations in amounts are found in Government bonds, both home and foreign. Take the funded obligations of the United States: the four per cent. loan of 1907 was issued in denominations of $50, $100, $500, $1000, $5000, $10,000, $20,000, $50,000; the four per cent. loan of 1925 is in similar denominations except that the highest is $10,000; the three per cent. loan of 1908-1918 is similar to that of 1925 except that the denomination of $50 is omitted and one of $20 substituted from which it is seen that our Government issues its obligations ranging from the popular price of $20 up to the exclusive figure of $50,000 per bond. In fact, upon special request, and if believed expedient,

the Treasury authorities would reach up to even higher denominations.

Denomination affects form and *vice versa*—not all these denominations are in either form; *i. e.*, coupon or registered. Coupon bonds are seldom for more than $1000 while those that require registration range above that to the highest amounts. The smallest denominations of the two forms, however, are usually identical. In subscribing for United States Government bonds, an investor or purchaser has considerable latitude. Unrestricted to one form or denomination, he may generally take up his allotment wholly in coupon or registered form or partially in either, and in such denominations as he designates.

Of foreign governments France undoubtedly manifests the greatest disposition to cut up its debt into small pieces. That government has three prominent loans outstanding, the three per cent. perpetual rentes, an issue of three and one half per cent. rentes and another of three per cent. redeemable rentes. The first two may be inscribed in any amount with a minimum of three francs and two francs respectively; the three per cent. redeemable rentes can only be taken in amounts of fifteen francs and multiples thereof. These bonds when payable to bearer with coupons can be had in the following amounts of rente; three per cents., 3, 4, 5, 6, 7, 8, 9, 10, 20, 30, 50, 100, 200, 300, 500, 1000, 1500, 3000 francs; the three and one half per cents., 2, 3, 4, 5, 6, 7, 8, 9, 10, 20, 30, 50, 100, 200, 300, 500, 1000, 1500, 3000 francs; three per cent. redeemables, 15, 30, 60, 150, 300, 600, 1500, 3000 francs. Here we have a unit so absurdly low as approximately 40c.—2 francs, a franc being equivalent to 19.3c. Germany also has three principal loans but the minimum is far higher than in

France, being two hundred marks. A mark being equivalent to 24c. makes the lowest amount for nearly $50. Next above 200 marks is 500 and then 1000, 2000, 5000, and 10,000 each.

Variations in denominations of municipal bonds are somewhat limited in comparison with the issues of governments. The same general principle holds, however. Where there is a great diversity in Government issues, a corresponding diversity in municipal issues as compared with similar obligations in other lands is found; but generally speaking, the high figures are never reached in municipal bonds. In illustration of this, take a recent issue by the Province of Ontario, Canada; to float a loan of $3,000,000, denominations were fixed at $200, $500 and $1000. Or take the public debt of Philadelphia, Pa.; this is put out in pieces of $25, $50, $100 and $1000, or again, merely for example, take a late issue by a county in one of the western States; in that instance the denominations were $100, $200, $300, $400, and $500. So it is quite generally with municipalities—their obligations may be issued for small amounts but the highest rarely, if ever, exceeds $1000. The examples cited are fairly representative.

With other corporations such as steam and electric railroads, manufacturing concerns, etc., a uniform practice holds; deviations from this are so few as to be negligible. Their bonds are universally in units of $1000 and never issued in such low denominations as are sometimes put out by governments and municipalities. Beyond $1000 and in multiples of that amount, they range to about $25,000 but this high figure is exceptional: below $1000 they may be found in $500 and $100 amounts but, to repeat, the general practice is to issue the $1000 unit.

It will be observed therefore, that most bonds are issued for a round sum, generally a convenient multiple; the exceptions are anomalies and are correspondingly affected for ill.

In so far as foreign government bonds are considered, it may be said there is no standard. English Consols, French Rentes, the German Mark obligations and many others are written up in such widely varying amounts that there is really no well defined unit in any of those countries. In the United States it is different. Notwithstanding low denominations put out by the Government and municipalities, there is a generally accepted standard which is $1000. Indeed a great portion of the Government and municipal loans are covered by denominations of this amount. Since the general practice among other corporations is to issue their obligations with $1000 as the unit, it naturally becomes a standard for them too. Yet market quotations are apt to mislead the untutored into a false conclusion that bonds are issued solely in denomination of $100. This method of quoting however, is to give a basis in terms of which all values are readily computed.

Casually considered, the amounts of bond denominations might appear to be largely arbitrary. The facts are otherwise. A number of reasons exist for the issuance of bonds as now practised. Denominations of every bond issue, be it Government, State, Municipal, or otherwise, are fixed, not by whim or fancy of the officials conducting it, but by some well-defined influences or laws or both. Determination of denominations may be directly by some individual, but indirectly it is in accord with certain conditions. The Secretary of the Treasury, the municipal officer in charge, or the

proper officials of a railroad or manufacturing company must set the denominations mindful of a number of conditions. Market, with all that implies, is the chief determining factor. Generally speaking, the market is the investing public, and to be successful a bond issue must be adapted in every particular to the nature of the demand. Notice the position of France; a nation of savers, thousands of them very small, the Government security of a few francs finds a ready market. It is impossible to get the average French investor to consider a \$500 bond, much less one for \$1000, the two denominations much used in the United States, inasmuch as the average investment in France is 1000 francs or \$200. So in England and the United States, there is a measure of popular demand for Government bonds, consequently low denominations. Municipal bonds find a market essentially local while other corporations appeal to still another type of investors more widely scattered.

Suitability to investors, therefore, is of prime importance in choosing denominations. Inasmuch as the types of investors in Government, municipal, and other corporation bonds are more or less distinct, the range of units of each kind is in conformity. Generally speaking, the more popular a loan, the more diverse are its denominations and the lower the amounts. Earlier it is stated that the form of bond affects the denomination. This is more so with Government bonds than others. In all cases, nevertheless, where they are coupon bonds, negotiation is quickly accomplished, while the registered form requires some formalities. Obviously those bonds that are to pass through the channels of exchange most frequently would be in a form to facilitate the process. Because of the comparative inactivity of the registered form, it can well

be issued in large denominations. In the face of such facts, it is apparent that the size of an issue, its nature and its purpose, are all factors affecting, and that an arbitrary unit is impracticable. Relatively unimportant, yet of some account, is the expense attached to a fine division of an issue and the matter of convenience in handling. The Government may find it expedient to issue $20 bonds but also costly. Other corporations do not adopt the same course, nor do they find it necessary.

Public corporation bonds alone are affected by statutory provisions as to their denominations; that is to say, by some ordinance, rule, or governing regulation aside, perhaps, from some very general legislative enactment. The diversity of circumstances attending bond issues makes it entirely impracticable to frame specific laws with respect to this phase of the matter. There may be isolated instances where a statute governs the action of a quasi-public corporation in the matter of fixing denominations of its bonds, but they are exceptions to the rule. The provisions applying to the paper of public corporations are generally embodied in the act authorizing the issue, at least in the case of Government and State bonds. Among municipals, the empowering ordinance specifies what shall be done, but often the charter of a city contains the governing regulations. In New York City, for instance, par value is provided for in this manner. Under charter provisions the city may issue registered bonds in denominations of ten dollars or any multiple thereof. Yet wherever there are directions pertaining to this matter, their limitations are practically nil. Were they absent, most officials would of necessity act quite within their spirit. Illustrating the latitude

allowed by such provisions, note the reading of most of the acts authorizing a Government issue,—"The act of (date) authorizes the Secretary of the Treasury to borrow on the credit of the United States, from time to time, as the proceeds may be required, to defray expenses authorized on account of (purpose) the sum of (amount) or so much thereof as may be necessary and to prepare and issue therefor coupon or registered bonds of the United States in such form as he may prescribe, and in denominations of twenty dollars or some multiple of that sum"; which, of course, gives the Secretary wide discretionary powers respecting this matter. Such an act is a guide rather than a restraint to a prescribed course.

CHAPTER IV.

PROCESSES OF ISSUE AND NEGOTIATION.

A DESCRIPTION of these operations in great detail would suffice for a small volume, so diverse are the methods and so ramified the processes. Details of the work vary greatly, but underlying all are a few general principles.

Assuming the necessity or expediency of bond issue the first step of the process naturally becomes the subject of inquiry. By whom is it authorized? That depends upon the nature of the corporation. Government bonds are issued under authority granted by Congress, in whom is vested the debt-creating power, and State bonds by act of the legislatures of the several States. The authorization of municipal bonds is not a uniform process, varying in different States and with conditions. In its final analysis, the authority to issue resides in the State legislature; its immediate exercise is by some local body such as a Council, Board of Trustees, etc. Frequently, however, a municipality is prohibited from bond issue save by specific legislative permit for each issue, and again this permit must be accompanied by favorable vote of the people. Still again it is but the people and the local body, while in cities, where voting on such propositions is impracticable, charter provisions grant the necessary authority.

With other corporations it is uniformly the prerogative of the stockholders. A unanimous vote of the stockholders is rarely necessary. Usually some percentage such as fifty-one, sixty-six and two thirds or seventy-five per cent. is sufficient to decide. Back of the stockholders is the charter which empowers them to borrow money by the issue of bonds. Beyond the stockholders are the directors. With the stockholders' authority the directors, by resolution, carry out their wishes. Generally the initiative is taken by the directors. In closer touch with the corporation, they know its needs better. Accordingly a resolution is drawn up and presented to the stockholders for their ratification. Supplemental to corporate action the railways within the borders of certain States must secure the approval of a railroad commission should they desire to issue bonds. Particularly is this the case with street railways.

In many States, not alone railways but all corporations issuing bonds must furnish the Secretary of State or other officer with a certified statement or letter giving full particulars of the issue, which statement generally includes date of issue, number of bonds, amount of issue, when and where payable.

The next step is preparation of the instrument. A draft of the text, made under guidance of counsel, is handed to the engravers, accompanied by a general description as to the appearance of the bond. Proofs are made and submitted for any changes artistic or legal. When the final form is determined it is returned to the engravers and the work executed according to agreement. The work completed, the bonds are counted and recounted, checked and verified and duly handed to the issuing company. There is a repetition of

checking and counting by the company and whatever official signatures are necessary are affixed and the seal of the company placed on each bond.

So far the process is essentially uniform be the issue Government, municipal, or otherwise. Here the paths diverge, according to the corporation and conditions. Even separate issues by the same corporation may be put out in different ways as to details.

Before a great many bonds, other than Government and municipal, pass to the first holder, they are almost invariably certified by a trust company. Where a mortgage indenture is given it is usually held by a trust company. Naturally the bonds under that mortgage would be certified by the same company. This trusteeship of the mortgage gives prestige to the transaction and the certification forms a protection to the purchaser of the bonds. This certification, however, is only as to the genuineness of the issue and that it does not exceed the amount prescribed. Its absence has been the opportunity many times in the past for over and fraudulent issue. Especially was this true of municipal bonds. Even now, without this safeguard, losses may be occasioned by error alone. Because of the frequent changes, many incumbents of public office are apt to have but insufficient experience along these lines.

Some years ago the New York Stock Exchange, recognizing the necessity, made rigid requirements as to certification. Since then, corporations, even though their bonds do not pass through the Exchange, endeavor to conform to these requirements.

The business of thus certifying bonds has proved lucrative for many trust companies, their charges running from twenty-five cents up, but seldom higher

than fifty cents per bond. On a few small issues the charge may be somewhat higher. Obviously, the fee under a mortgage of say one hundred millions of dollars is no inconsiderable item. This form of compensation is said to have netted a large trust company in New York City, in a recent year, not less than $175,000.

Being duly certified, the bonds are usually returned to the issuing corporation for disposition.

The method employed by the Government in disposing of its bond issues is public sale. Some years ago a few issues were taken entirely by syndicates, but this course has been abandoned. Obedient to the law, the Secretary of the Treasury prepares a circular inviting subscriptions, which contains a full description of the issue and the terms under which the bids will be awarded. It also contains a reprint of the text of the act authorizing the issue. In this way every loan is made popular. In fact the law provides that all citizens of the United States shall have equal opportunity to subscribe therefor and the Treasury Department seeks, by every means, to extend the opportunity for such subscription to all the people. In the case of the Spanish war loan every newspaper in the United States was supplied with interesting and instructive information relative to the issue, which, with few exceptions, was patriotically displayed free of charge.

Blank forms for subscriptions, with circulars of information, were supplied and a period of thirty-one days allowed for receipt of subscriptions. The Secretary's course was unusual in this case. Ordinarily circulars are sent broadcast and advertisements inserted in financial papers, but no such efforts are put forth as at that time.

As far back as 1776 this was essentially the method pursued. To float loans during that period loan offices were established in each State; lenders received indented certificates corresponding to our modern coupon bonds.

Naturally the response to such popular invitations is hearty.

In many respects the popular loan of 1898 was the most extraordinary bond offering attempted in this country. The Treasury was literally flooded with applications from 325,000 genuine bidders and hosts of fraudulent ones. This $200,000,000 issue was sold at par, 232,224 subscriptions for $500 or less being received by the Government through 22,000 post-offices, the banks, and express companies. The Treasury had to add nearly six hundred employees to its working staff in order to properly tabulate the bids and attend to the details of the offering, the expense of which amounted to $292,959. Within five months, $77,361,000 of the bonds originally allotted to 116,000 subscribers were concentrated in the hands of 1001 owners, which shows that the original holders soon sold their allotments. It was, however, a great popular success.

The Government received 4635 bids for the $100,000,000 4 per cent. loan of February, 1896, and the $30,000,000 issue of Panama 2 per cent. bonds of 1906 brought 1500 bids.

The question of cash deposit, which is within the discretion of the Secretary, affects the bidding on Government loans. As an evidence of good faith a cash deposit is usually required with subscriptions, but occasionally part payment may not be required until a certain date after subscribing. Again the deposit may be required

on notice of allotment. The stipulation as to a cash deposit is omitted only in times when the money market might become disturbed if this were required of bidders. The Panama issue, for instance, was over-subscribed more than fifteen times. Had only a ten per cent. deposit been required, nearly $50,000,000 would have been tied up for a time. On the other hand, it is the only way to discourage the practice of "straw" or speculative bidding.

A short time after bids are opened, a list of awards is published. When payments are required they may usually be made at some designated sub-treasury most convenient. The delivery of the bonds is accomplished in numerous ways. Sending direct to the purchaser by mail or express, or through a sub-treasury, are among them. This, however, is largely in accord with the purchaser's convenience and any reasonable request as to delivery is generally honored by the Secretary. The course of the Government is practically the same in disposing of all its bond issues.

Foreign governments, in floating loans abroad, usually pursue a course similar to that of the large private corporations of this country in placing their securities with large bankers for distribution. The bankers receive subscriptions, much in the same manner as our Government, make allotments by letter at their discretion, exchange these allotment letters for temporary certificates upon payment of final instalment, and the bonds are delivered in exchange for the temporary certificates as soon as practicable. These bankers are usually the most prominent in the financial centres of various countries. The issuing nation allots a certain amount to each group of bankers.

The individual States of this country follow largely

the methods of the Government. The laws generally compel this. Public subscription is universal, sealed proposals being received at the office of the State Comptroller until a certain date for whole or part of the issue and awards being made to the highest bidder.

Municipalities vary in their procedure; exigencies of circumstances and the judgment of officials in charge often figure prominently. There are, however, certain legal requirements which must be observed, such as advertising the issue in the papers of the county in which the municipality is located. Should the market be favorable an entire issue may be sold over the counter of the Treasurer's office direct to investors. Again it may go in large blocks to bankers and brokers. Still another method of disposing of considerable amounts is to offer them to the Sinking Fund Commissioners of the same municipality. The necessity of purchasing large amounts of securities for sinking funds creates an outlet for goodly portions which might otherwise meet an unfavorable market.

Bidding for bonds concerns only corporations of the classes just mentioned. The operation is interesting. Briefly stated, it calls for bids in a sealed envelope, enclosed in a properly addressed envelope. If a cash deposit is required, it may be from two per cent. up to any per cent. of the par value; other times it may be a specified amount. In successful bidding this amount is applied toward payment, otherwise it is returned within two or three days of awards. Failure to take up a bid forfeits the deposit. The bids may be for "all or none," "all or any part," of the whole, "all or any part" of a specified amount, etc. The price offered may be a certain figure or different figures for

different amounts. Following is a bid that was made for some New York City bonds which is illustrative of the method: "101.135 for all or any part of $5,000,000: each for $100,000 or any part of that amount; 100.265, 100.387, 100.527, 100.637, 100.887; 100.777 for $1,500,000 or any part thereof." Invariably the right to reject bids is reserved.

Corporations such as railways, manufacturing companies, etc., issue their bonds in ways entirely affected by conditions. An issue may be put out all at once, or in amounts according to some special conditions, or as the work for which they are issued progresses, etc. No semblance of uniformity exists. Companies are large, medium sized, and small and their methods correspondingly varied. They may advertise for bids, as do municipalities; turn them over directly to a syndicate; sell to some large banking house, or, as is frequently done, offer them first to the stockholders of the company and syndicate or sell to bankers those not taken upon this offering. In refunding operations it is largely a matter of exchanging the old for the new.

Large issues are usually sold in their entirety to a strong banking house. Under favorable conditions, a better price would be realized by public sale, but the necessity for money often arises when conditions are otherwise. The services of a banking firm in marketing bonds may be so valuable that in the long run a company may realize more for its securities than if it attempted to sell them without the bankers' aid. Companies, therefore, in many instances, enter into a contract giving a firm the right to take over all of their bond issues. The advantages of this course are manifold. Large banking houses are in close touch with the investing public, they have a finely organized

equipment for distributing such securities, their experience in making bond offerings attractive is wide and they have the skill and facilities for handling the market. Moreover, a bond issue put into the market through reputable bankers carries with it the recommendations of experts whose investigations of every phase of the situation have been thorough. When a company wishes to dispose of an issue its bankers are usually consulted, and their judgments and suggestions embodied so as to best adapt it to the market and conditions.

If an issue be of considerable size, the purchasing banker will wish to insure it, so to speak, and accordingly proceed to form an underwriting syndicate.

No banker, however large his capital, cares to assume the entire risk nor tie up so much capital in one security. Conditions may arise making it impossible to market the issue, for the time being, hence the underwriting which is virtually insurance.

Underwriting of to-day is somewhat different from the original practice. Originally the underwriter was under obligation to apply on the public issue for such a proportion of the securities offered as the banker might require him to apply for within a certain limit. Each underwriter agreed for a certain amount on which he would receive a commission and he would have to buy his proportion of those remaining unsubscribed for by the investing public. Now, it is customary to form an underwriting syndicate which, in reality, purchases the securities from the banker. He it is, however, who offers them to the public, for account of the syndicate, and whatever securities remain unsold on the public issue syndicate subscribers retain. Strictly speaking this is not underwriting,

but this term, as now understood, means not only underwriting but indicates that a syndicate exists. The earlier method might aptly be termed conditional and the later absolute underwriting.

The prominence of syndicates in the distribution of issues of bonds warrants a description of their formation, operation, dissolution, etc. Their members may be individuals, banks, bankers, brokers, trust companies, etc. Primarily they are formed to reduce the liability of the bankers taking the bonds originally, and to effect a thorough and expeditious distribution of the securities.

When about to take over an issue of securities the banker sends letters to institutions and persons associated with him, stating quite fully the nature of the issue and inquiring whether they desire to enter the prospective syndicate, or informing them a certain interest has been reserved and desiring a reply as to acceptance.

If the syndicate be small, its arrangements could be made verbally, which is sometimes done. The majority of such operations, however, are conducted under the terms of a formal document, an Underwriting or Syndicate Agreement. Each member signifies acceptance by signature on the agreement, or, if this is not practicable, by signature on a copy and the banker retains same. This agreement briefly describes the security purchased and provides that no subscriber shall be liable for more than the amount of his subscription. It further provides for the details of management and the taking up of the bonds at a specified date and price unless there are stipulations that the syndicate may be extended by a majority vote. An extension may run into years. A syndicate

which underwrote a large railroad issue has just been dissolved, having run nine years.

Administration of a syndicate requires considerable time and attention, which is accomplished by appointment of managers. Usually the bankers perform this function although a trust company may act in this capacity, in which case it would attend to the prospectus that is issued and see that the securities under consideration were put into the market, much in the same manner as the bankers would do. The responsibility of practical execution of all work lies with the managers. In fact upon them depends largely the completion of the whole transaction in a way mutually beneficial to all who participate. Nevertheless it is generally understood that every member shall assist in as large a measure as possible in the distribution of the securities. All are expected to do more than take profits; and they each do endeavor to get a number of subscriptions for certain amounts, acting essentially as an agent for the benefit of the whole syndicate.

Frequently a considerable period elapses from the time when the banker takes the securities from the corporation until members of the syndicate have disposed of their holdings. It is an operation which must often be long continued and may last anywhere from six months to two years and even longer.

Profits attending syndicate operations vary with conditions. Instead of a profit a misjudged market may mean a loss. Except during the most adverse monetary and market conditions a substantial profit is realized. First of all is the banker. A few years ago a commission of five per cent. was not uncommon; the feature of present bond offerings is that these commissions are growing smaller and smaller, two per cent.

being considered profitable, whereas sometimes it is still less.

Syndicate profits are no less affected by market and other conditions. Should an issue be so successful that the members are able to put through quick sales or even sell their allotments in advance of the underwriting, so that they may not be compelled to put up any money or buy any securities, a handsome profit may result. For instance, the group of bankers that handled one of the recent Cuban loans netted nearly 7 per cent. A recent Russian loan was syndicated at $95\frac{1}{2}$ and put out at 99. Large profit, however, on high class securities is not usual. Securities of weaker corporations are underwritten with the full expectation of large returns. Syndicates in industrial issues get as high as 10 per cent. at times.

Still another source of profit for syndicates is bonuses. These may be a certain percentage of the amount underwritten, in the same or another kind of security. Or again they may be a portion of securities with some cash. Such bonuses are considered as commissions.

There is yet another way in which a syndicate member may increase his profits and that is by authorizing his allotment with drawn from sale. Under these circumstances, it is usually taken up as a personal investment under a better price than the other members obtain. After the syndicate is closed he may be able to dispose of his holdings at a better figure than previously.

Marketing of an entire issue by the managers, or bankers, of course terminates the syndicate. One that is open indefinitely may be concluded by request of a majority of its members. Dissolution by limitation of time often occurs.

During the life of the syndicate every member has a right to examine its books of account, but this is seldom done. Often, at the close, a complete statement is sent around giving full information as to the transactions and showing the pro rata of profit. Where this is not done full confidence is reposed in the bankers, and their check, representing the profits and closing the deal, is accepted without question.

Chief among bond-distributing agencies are private bankers, the larger of whom dispose of their securities almost entirely through syndicates. An indication of the extent to which they handle bonds may be gathered from the fact that it is roughly estimated that the two largest firms in New York, besides their other business, sell close to two millions of dollars of bonds each business day.

Those less strong, though of very high class, have other methods besides syndicating. Acting as bankers, they arrange syndicates and at times participate in them. A most efficient organization exists for this purpose. Like commercial houses, they advertise extensively and have a well organized corps of salesmen and their assistants who draw, as it were, a fine-toothed comb through the investment market. A few have a network of branch offices favorably located throughout the country and others their out-of-town correspondents. At the office are most thorough systems of carding, indexing, filing, compiling, following up, etc. There is a very finely classified list of investors, institutional and individual, to whom are sent circulars describing different issues, and other information. Statistics are kept of sales, prices, fluctuations, etc., of all securities for different periods. Some have financial libraries containing prospectuses,

annual reports, mortgages, reorganization agreements, and every type of published financial information, which facilities are usually offered to investors. Every phase of the business has its assigned department and systematization is the watchword.

Selling of bonds is becoming more and more a field of operation for national banks and trust companies, whose methods are similar to those of the large banking houses though their equipment is not so complete. Activities along these lines are practically confined within the organization, the only outside agency assisting being possibly a branch office in the same city. Their profit from sales of bonds is a minor consideration, the aim being, as with their foreign exchange business, to draw a clientele that may be useful in other ways.

The host of brokers in Wall Street handle immense amounts of bonds. Furthermore there are small dealers almost without number who derive a comfortable income from fractional profits on their transactions and still another class, though small, who handle only this kind of security are those who might be called bond arbitrageurs. They go about the offices of larger dealers, ascertaining and filling their needs, acting essentially as brokers, and all without ever purchasing a bond on their own account.

Thus it is that numerous channels lead from the issuing company to the investor. A bond may pass through the hands of half a dozen dealers before it reaches him.

Unlike stocks, the bulk of bonds do not pass through the Exchange. The bond business is largely disassociated from this institution. Consequently the

amount of trading in these securities which is recorded on the "Board" each day represents only a small fraction of the total purchases and sales that take place in the financial district. Government bonds, for instance, are quoted and dealt in to some extent, but probably nine tenths of the transactions in this class of securities take place in the banks and in the offices of dealers in bonds, a process of selling over the counter and a simple operation. The course of a bond from investor to investor through selling and buying broker on the Exchange is more complex. Assume that the investor has bought a bond from a banker. If it be such as must or may be registered the work may be attended to by either the purchaser or seller. The owner's name, with other facts, is recorded at the registrar's office. Banking houses and trust companies quite generally act as registrars and also as transfer agents. Desiring to sell the bond, the owner places his signature of endorsement on the back. If it be a full registered form, or if of registered coupon form, he signs a transfer slip which constitutes an assignment. His broker, on the floor, asks a price (usually somewhat above what he expects to get) and another may make a bid (usually lower than he expects to pay). The difference, however, is not great. A disposition to trade generally brings them to a common ground and the transaction is completed by mutual concessions.

Their trade may be for either cash or regular delivery. For cash, would require the delivery of the bond and payment therefor the same day that the purchase is consummated. All sales, unless specified differently, are made regular, that is, deliverable on the following day except in cases of sales or purchases

made on Friday or Saturday, which are deliverable Monday. From considerations of safety, the Stock Exchange rules permit only unregistered coupon bonds to be a good delivery, that is, pass just as ordinary negotiable paper or without special arrangements. Bonds of higher denomination than $10,000 or lower than $500 and bonds in names of executors, guardians, trustees, etc., are not good delivery except by special agreement.

Careful records and comparisons are made of every transaction, very much as with stocks, but because of the relatively small aggregate the clearing process is unnecessary.

Borrowing bonds on sales made is a practice little in vogue. Large amounts of stocks are borrowed in order to fill engagements, but the expedient of what is known as "seller ten," "fifteen," or "twenty" obviates the necessity of borrowing bonds in a similar way. These "seller" contracts allow the broker the specified number of days in which to obtain the necessary securities and make delivery. Should a broker wish to avail himself of an exceptionally favorable market, while say the bonds to be sold were in transit from another country, he might borrow for regular delivery, but generally, if the bonds are not at hand, a "seller" contract is made. This style of transaction resembles "short" selling; the essential difference is that the broker has the bonds somewhere.

Stock Exchange commissions on sales of bonds are the same as on stocks, namely, one eighth of one per cent. of par value.

Record of transactions in bonds on the Exchange is furnished to the public through several mediums. Earliest is that on the tape. Immediately after a

trade, the number of bonds involved and the price of sale appears there. Twice a day, at one o'clock and the close of business, the Exchange issues a quotation sheet giving the bid and asked prices and all transactions. Supplementing these, the newspapers contain practically the same information. These Stock Exchange quotations are only approximate; they do not represent the actual market at all. A quotation may be established by a bid or offer of bonds, which though good for the moment would not hold should an outsider desire to dispose of a considerable quantity of bonds. Particularly is this the case with Government bonds where the quotations are made by one or two large dealers to give the impression that the bonds are worth the price b d. As a rule, the actual market is somewhere between the quotations given on the Exchange.

Two methods of quotation were used in Wall Street. On the Exchange, flat prices were made; private bond dealers generally quoted "and interest." Since January 1st, 1909, all quotations have been "and interest." The first method meant the sum of a certain price and the accumulated interest from the last interest period; the latter definitely states the price, the accumulated interest to be figured at the time of sale. In a final analysis they are but different expressions of one thing.

New York is the great and central market for bonds and most of the large and active issues are put upon its Exchange. The process is similar to that employed with stock, that is, the bonds are listed. Government, certain State, railroad, and many corporation bonds are listed. There is now no unlisted department as formerly. Some corporation, all municipal, and most State bonds are neither quoted nor dealt in on the

Exchanges. Especially large railroad issues are occasionally listed abroad.

That the quotation for bonds of an issue should be made before they are placed on the market seems odd. Yet on the "Curb" market trades are made on the bare suspicion of such action and speculation is often brisk in these hypothetical securities that may or may not be issued. The method is to qualify the contract by the phrase "when, as and if issued." Sometimes large transactions take place. It is usually the experience that these quotations are somewhat above the subscription price.

CHAPTER V.

LIMITATIONS.

Around the process of issue of investment bonds are thrown certain restrictions, at once wise and necessary. They are rigid or lax, few or many, much according to the class of corporation affected. Opportunities for fraud are not yet absent; indiscretion is quite within the range of possibility; error is not yet eliminated from corporate action. These restrictions may be self-imposed or the weight of authority; they may be external, the mandate of law; or internal, organic regulations.

Least affected is the Government. Constitutional limitations as to debt or details of issue are absent and the Secretary of the Treasury is little circumscribed by rules or regulations of Congress in the conduct of bond issues. To be sure, the authorizing acts are specific in their terms, but also simple and free from minor restrictions. While not customary, the restriction that par is the lowest price acceptable is occasionally incorporated in a measure as it passes Congress. The early $30,000,000 Panama Canal issue was one such.

Some of the State constitutions prohibit the creation of any debt except in an emergency, as in the case of invasion or rebellion; others contain provisions limit-

ing the amount of debt that can be contracted by the State authorities up to a certain percentage of the assessed valuation of real estate, still others restrict their respective states to an outstanding issue not to exceed a fixed amount, and a few seem to have no provisions limiting the power of the legislature to create State debt. Constitutional limitations do not affect details of issues; the legislative act authorizing an issue usually embodies these. Such as exist pertain to par value, conditions of sale, etc.

Municipalities, however, are hedged about by many restrictions, constitutional and statutory, as to contraction of debt and particulars of bond issue. In many states they are only indirectly constitutional inasmuch as power is delegated to the legislative body to prescribe for such matters by statutes special and general. Again in others the constitution puts a general and uniform limit to power of all counties and cities to contract and put out their obligations, leaving the legislature to fix the debt-making power of villages and towns.

Based on assessed valuation, percentages vary in different states. They are uniform or graduated to the size of the municipality and run from two to ten per cent. of the taxable property contained therein. New York permits its cities and counties to become indebted to the extent of ten per cent. In some cases the assessment on which percentages are based is taken periodically —in others it is the last one.

In a few instances the borrowing capacity of a city has no limit but for each loan the legislature must pass an enabling act; the council must pass an ordinance and the proposed loan must be approved by the people. Baltimore is a case in point.

Laws in regard to limitation of indebtedness are ineffective in some cases. The fact that a municipality may have frequent recourse to the legislature to exceed its debt limit (and generally have its request granted) vitiates them to a considerable extent. For instance, a certain city of New England has a net debt of twice the amount permitted by law, but as often as the city council asks it is permitted to issue more bonds.

So far as laws or ordinances affect the bond issues specifically, a few facts should be noted. Some states particularly designate the par value of municipal bonds. Injunctions of this character may be well adapted in cases but generally there is no prohibition of various denominations. Restrictions that all bonds must be sold at par or higher are almost universal with municipalities; what few exceptions exist are cities of fewer than a prescribed number of inhabitants which are permitted to dispose of their obligations at a slightly lower figure.

Maximum and minimum maturity are often specifically stated; different states compel different maturities. Municipalities quite generally, especially cities, are forbidden to pay an interest rate above a certain per centum per annum; different states, however, permit different rates of interest in different sized municipalities.

Then there are statutory provisions as to the form of bond a municipal corporation may issue and again limitations as to the purpose involved.

As to limitations affecting bond issues of corporations other than public, few are statutory. About the only corporations under law in this respect are those operating by virtue of municipal franchises, and they not generally. A few states limit the application of

proceeds of bond issues to certain purposes, and here and there interest is limited to the legal rate or some specified amount as, for instance, in the case of street railways in Ohio where it cannot exceed seven per cent. To a somewhat greater extent, states limit the period of life for bonds of corporations acting under such franchises.

In England the issue of railway securities was regulated forty years ago. In the United States, however, there is still no general legislation limiting the power of corporations to issue stocks and bonds, nor has Congress ever issued a law restraining managers so that a fraudulent issue would be impossible.

Notwithstanding these facts, evolution in finance has wrought out practices and principles that have become well-nigh classic, and which, in themselves, are a most efficient check to corporate misdoing and error. Especially is this true of railroad finance where bond issues are frequent and great.

Most of such issues are secured by a mortgage and this document held by a trustee. Under the process of certification, already described, and such trusteeship, there is an effectual check, and fraud or bad faith are difficult of accomplishment.

But primarily there are various restrictions to the issuance of the definitive securities of many railroads. A mortgage may expressly provide that bonds in excess of a certain amount shall not be certified by the trustee except upon the written request of stockholders owning at least fifty-one per cent. of the capital stock of the company, specifying the amount of bonds so to be issued; or, again, it may provide that only so many bonds of the total authorized issue may be issued each year, also stipulating that this amount is to be used

only for specific purposes, perhaps betterments and improvements. The latter expedient was quite generally used in the railroad reorganizations of recent years. Large bond reserves issuable over a series of years have been provided for lest the stockholders refuse to authorize a necessary issue if left to their discretion.

Very frequently a portion of an issue is held in escrow and may only be issued under certain conditions, or is held for the retirement of prior lien bonds. In the construction of new work, the trustee of the bonds is generally permitted to issue them only in amounts to correspond with certified statements from the engineers in charge which cover the actual cost of construction as the work progresses.

Perhaps the most effective safeguard against extravagance in the issue of railroad bonds, where new construction is involved, is the per mile basis. Here the approximate cost of the new work per mile is carefully calculated and the bonds issued accordingly. The amounts vary greatly; under descending mortgages they become proportionately less per mile. A great many conditions enter to fix the amounts. Aside from whether it is double or single track, main or branch line, side or main track, many engineering and economic conditions must be considered. While amounts vary, the average bonded debt per mile in the United States is about $35,000.

CHAPTER VI.

LEGALITY.

Consideration of this question is almost wholly with reference to municipal bonds. It has no place in a study of Government obligations and is a matter of little concern in State issues, save in the measure that constitutional restrictions or regulations are involved. Like those of the Government, bonds of all other than public corporations are unaffected by this question; conditions governing their issue and affecting their life are distinctive and in most cases the investor is protected by security in tangible form. Questions of law affecting such bonds go back to legality of the mortgage under which issued. Counsel, therefore, of the corporation issuing the mortgage certifies to its propriety and lawfulness and drafts of the mortgage and bond are usually submitted to the trustee (generally a trust company) for the examination and approval of their counsel. This proceeding accomplishes, in effect, what a certification of legality does for municipal bonds. With thousands of municipalities throughout the land issuing hundreds of millions of dollars of bonds, for innumerable purposes, with officers of varying degrees of efficiency, integrity, and ability to interpret the law correctly, the question of legality is of much consequence.

Its importance arises from a threefold consideration; safety of the investor; reputation and standing of the corporation; and interests of the taxpayers. Personal knowledge of the laws governing these matters is, of course, impracticable, for the majority of investors, hence others must vouch for the safety and integrity of the obligation. Should this precaution be neglected, the investor faces the possibility of loss, partial if not absolute, according to the existing circumstances.

Notwithstanding the fact that validity of municipal bonds is rarely questioned once in the hands of investors, buyers should be ever mindful that an issue is void, even in possession of innocent and bona-fide holders if emanating illegally, without the authority of law.

What is the fate of the investor in possibly illegal bonds? The municipality is enjoined from interest or principal payments and an interminable quarrel is provoked. Suit is instituted, beginning litigation that may hold the bonds for years and years. Meanwhile, and until the question is determined, the investors' money is withheld and in the end he may lose all on an adverse decision of the courts.

More frequently, suit and injunction are brought against the municipality before the issue is sold. Upon the initial step or as soon as it is advertised, proceedings are begun challenging the right to undertake the work for which the bonds are contemplated.

From the issuing corporation's viewpoint, the wisdom of assured legality is apparent. Corporations may have no soul, so often asserted, but they do have reputations. Let a municipality put out one or two illegal issues and sooner or later it becomes a party

in annoying litigation. Sufficient is this evil of itself, but its effects are worse. An unsavory reputation is not conducive to public confidence. Every corporation needs additional funds from time to time and to obtain them readily must court public favor. A municipal corporation therefore, must needs be cautious lest it find its credit waning and its debt limit not the prescribed percentage of its assessed valuation but its inability to borrow needed funds; or, the equivalent, bids for its obligations at discount.

An occasional illegal issue may find its way into the market but fraudulent bonds are seldom heard of nowadays, at least from a corporation standpoint. Several extensive forgeries of municipal bonds by outside individuals have been unearthed within the past few years but any but genuine from the corporation are practically unknown.

If the question of legality is of such moment to investor and corporation, the interests of the taxpayer must not be overlooked. Inasmuch as retirement of bonds and payment of interest charges are generally the result of taxation, the purpose of their issue and the whole process must be legal to make the tax for their payment legal. Self protection is a fundamental principle with those on whom the burden falls, so that almost always institution of legal proceedings is the act of one or several taxpayers.

Absolute validity is a matter that has received much consideration by some states. Texas has made it the duty of the Attorney General to examine all proceedings connected with the issue of bonds by cities, towns, and counties, and before any bonds are sold he must furnish a certificate that they are lawful obligations. In the State of Georgia, where no bonds can be issued

without the consent of the electors, by vote, the law provides for having the Superior Court determine the validity of proposed bond issues and judgment in the affirmative having been given, they can never be called in question. In Colorado the various municipal issues must be registered on the books of the County Auditor and the tax levy for the payment of the principal and interest certified annually by him. Provisions such as these might well be considered by legislatures of other states and would save in interest many thousands of dollars to the taxpayers.

Many points are involved in the authority of municipal corporations to issue bonds. Laws vary greatly, being different in almost every State. Almost the first question to be asked is whether they are issued in strict accordance with law; whether the officials in charge have complied with every one of its provisions. Complete enumeration of all such points to be considered is impracticable, but their general character may be understood by mention of a few.

First, and perhaps most important, is the matter of debt limit; so vital is this, that much time is spent and scrutiny exercised on it. The borrowing margin between the total outstanding debt and the legal limit is often a matter of doubt and discussion, especially in large cities, owing to the differences of opinion in the classification of the debt. It is therefore essential that this point be settled with considerable definiteness and to know that the added debt does not, perchance, violate this provision of the law.

Often a popular vote is necessary to authorize an issue of bonds; when so, the legality of the proceedings and all attendant formalities must be carefully examined. The required advertisement may have been

inadvertently overlooked, which might prove serious should it come before a court.

Were the proceeds properly applied, and is the object of their application legal, are among the important questions to be asked and answered. Frequently the courts have declared an issue illegal and void because issued in assistance of an enterprise not distinctly public in its nature and benefits.

Generally speaking, such matters as assessed valuation and amount of indebtedness may be easily learned from official statistics, but full legality is a matter which requires considerable investigation and knowledge of law and the general conditions affecting, and is, therefore, not generally known to the investor.

Obviously, then, some authoritative assurance of safety from the legal point of view, is necessary. Municipalities do not generally undertake to have issues certified as to their legality. That falls to the first purchaser. As the majority of such issues are taken entirely by bankers, they naturally attend to this detail. Attorneys, generally of their own selection, carefully investigate, and as a result prepare an opinion embodying their conclusions which is filed at some accessible place, often with a trust company.

On the bond itself is engraved what is considered the certification and is in general form about as follows:

> The original opinion of (Attorney) relative to the validity of this issue and all legal papers are filed for inspection of the holder hereof, with the United States Mortgage and Trust Company.

Half a dozen law firms in New York City enjoy the greater part of this business. The financial position

of the city makes it the focus of the bond market and naturally certification by some of its well-known firms carries much weight; in fact, several make this work a specialty.

Many people are prone to confuse this certification with that which is usually done by trust companies, who certify to genuineness but do not vouch for its validity. The distinction should be clearly noted; one involves right to issue; the other accuracy and integrity of execution of the process, or, in other words, exercise of the right.

A municipal issue may be invalid from either the absence of right to issue or through unsystematic methods of preparation and execution. In fact, the most fraud, duplication, and errors have occurred for this latter reason.

No written laws require certification of municipal bonds, but when municipalities sell directly to investors, they generally follow the bankers' custom in this respect and in their newspaper advertisements the fact is mentioned.

So universal and essential is the practice that on it largely hinges the worth of most municipal issues as investments. Some investors would not consider such a bond without this certification and then, too, except by certain law firms. In a word, its net effect is to enhance the obligation in the market, contributing in assuring its distribution and toward stability and price.

CHAPTER VII.

MARKET.

Discussion of the bond market may proceed entirely from either of two viewpoints. Transactions of a single week may serve as a text in the discussion of one of these aspects. Take reports of bond sales for any week, and, aside from total amount, little is to be learned except prices at which they changed hands. The average newspaper and financial reports and financial columns are written almost wholly from this viewpoint so that the conception of market as drawn from such reading is prices. Not only the printed page, but the spoken word, too, conveys nothing other than the idea of quotation. Such usage of the term *market* is fundamentally correct and generally conveys sufficient information for the purposes and operations of business, though incomplete in the sense that it fails to imply many interesting facts of distribution.

To be sure, the banker's chief concern is with the price at which he is able to dispose of his securities, yet he must have a comprehensive knowledge of their distribution. He knows what is almost axiomatic, that the broader the distribution the higher the quotation; that a widening market immediately affects their price; that broad distribution and a high price mean comparatively narrow fluctuations in that price.

Full treatment of the subject, therefore, must proceed from the basis of its division into two parts, namely, price and distribution, separate and distinct from each other but with relations so close as to make them complementary and the consideration of either a corollary to the other. The complexity of these relations almost defies analysis; they shade into each other with imperceptible gradations; are interwoven as the warp and woof of a fabric; are mutually dependent.

In its simplest expression, the market for this class of investment instrument is the demand. But demand is the product of conditions and circumstances which vary in intensity and with time; their play causes its rise and fall and their effect is good or evil, local or universal, much according to their nature. It is the purpose here to note specifically the most important of these conditions, inquiring into their relations with each other and with the market in general in its twofold aspect.

Rather strict construction may be put upon the term *demand* by interpreting it more in the light of pure investment than otherwise. Any purchase of bonds, is, of course, demand, whether for speculation or permanent investment, as these terms are understood; whether held for several weeks or a number of years and the lines of distinction cannot be finely drawn, but, in its truest sense, it is the call for investment.

In the bond market (speaking especially of Stock Exchange operations), appearances are sometimes deceptive; what appears to be a demand is, in lesser degree but nevertheless as genuinely as in the stock market, manipulation of prices. In the parlance of

bond and stock market there is a "made" market which generally implies that by manipulation and fictitious sales a quotation has been established, at least for the time being. Thus the quotation is "fixed" and the tape put up to give the impression the bonds are worth the prices bid. Investors are deluded into buying and in a few days find prices recede perhaps a point or two. Syndicates that are unsuccessful in marketing their bonds as readily as anticipated, sometimes resort to this means of creating higher quotations. The fictitiousness of such a market and its worthlessness as a criterion of value are apparent.

A fictitious market generally means forced and unnatural prices, which should not be confused with an artificial market that may be absolutely genuine. In the United States is an unparalleled example of the latter where the basis is accidentals rather than essentials, and the consequent artificiality is seen in both price and distribution. It is the product of the banking system of this country which requires the use of Government bonds for various purposes; a system expressly designed to make a market for these obligations during the stress of Civil War times. This necessity has now passed yet the banking system remains practically unchanged and continues to perform this function perfectly. For this reason the expressed intent of the law miscarries with Government bonds; though supposed to be popular and widely distributed, they find lodgment to the extent of fully seventy-five per cent. in the national banks of the country.

Merely as bonds they stand in unfair comparison with others quite as good; their price is entirely artificial and is sustained by the demand for them

for the various purposes other than pure investment. Remove these conditions and it is not unlikely they would decline considerably, especially in view of the growing credit of many industrial, railroad, and other corporations.

In contrast to United States Government bonds, for instance, are British Consols. Lacking a corresponding stimulus, these famous national bonds sell at a discount of from ten to twelve per cent. whereas not one issue of our Government is quoted to-day at less than par.

In a sense, there may be at least temporarily an artificial market for any bonds. Far fetched though this may be it is consistent with our premise that a true market is a legitimate investment demand. Blocks of bonds bought purely on speculation with an intention of selling at the first advance, and large issues held by underwriting syndicates, are really temporary rather than permanent investments and hardly serve as ground for conclusions.

Fictitious and artificial price and distribution, though potent realities in the bond business, are anomalies.

Laws of cause and effect operate in the bond market with absolute precision; effects are obvious—causes are not easily discernible except by the expert. A depression in price for an issue is a matter of recorded fact, easily and quickly apprehended; conditions of which it is the resultant, are often obscure and collective. Distribution of the great mass of bonds is a comprehensive study and the causes that largely determine it are many and varied.

They may be designated as special and general, or, accidental and fundamental, or, temporary and

permanent; all of which at best are but arbitrary classifications. Some conditions affect both price and distribution; some affect but one of these. The influence of some is felt at certain times and again the influence of some is felt always. Special conditions, as a rule, affect the marketing of the individual issue; while general conditions are broad in scope and far-reaching in effect and may be felt throughout.

Market, as we have said, is the demand. To realize a good price and secure ready distribution there must be balance of supply and demand. Corporations of any kind must regard the time of issue. The volume of such forms of credit must not exceed the demand. The ability and willingness of the market to absorb must be considered. If time of issue affects the market, the converse is also true. Naturally, corporation managers, under advice from their bankers, avoid flooding the market at an inopportune time. But occasionally necessity demands that strictest caution and judgment be set aside in some measure and a corporation is compelled to put out a bond issue to that extent regardless of this fundamental principle.

The depressed condition of municipal credit in New York City during the year 1907 was attributed largely to this. One of the principal causes, it is held, is that large issues have followed each other in such rapid succession as to reach a point of saturation. The demand which absorbs municipal bonds of high grade is fairly constant and largely of local origin, but there is such a thing as satiating even so avid appetite as the investing public sometimes has.

Simultaneous issues to any great extent, by different corporations, is also to be averted. Unless the market is unusually good, some of the issues thrown

at once into it are bound to suffer in price and absorption is sure to be retarded. In 1906, coincidental with the flotation of the Government Panama loan, New York City issued $20,000,000 of its obligation. This fact was made to account, in large measure, for the low average price received and the paucity of bids. Thus it is that simultaneous issues and those of rapid succession militate against their own good. A depression in their price, if sufficiently pronounced, is likely to affect the entire market.

What are the conditions which influence investors in their judgment as to the value of bonds and their readiness to take them? Underlying all other considerations is that of confidence. Public distrust of the methods of high finance; pessimism as to the business outlook; a lack of faith in the stability of an enterprise—all these, with others, have their reflex in the dulness of the bond market. The demand for good bonds is generally a barometer of the public's disposition; this was never more manifest than during the year 1903 when through the wholesale disturbance of confidence in general, the shrinkage in prices was most pronounced. In further demonstration of this, New York Stock Exchange figures show that in a certain week, shortly after the Japanese Government issues were put into the market, well-nigh one half of the bond transactions on that board were in these bonds. In the face of conditions most adverse, this was remarkable, and cannot be considered as due to anything more particularly than to the confidence of investors in these particular securities.

Confidence and its opposite are terms representing states of feeling widespread and infectious. Akin to these but rather local in its operation is sentiment.

It may affect an individual issue, a particular type of bond, or, in fact, a whole class of bonds. Sentiment plays quite a part in the purchase of bonds, as truly as in stock-buying. Much attention is paid to the sentiment of Wall Street in regard to bonds. Should a dealer be prejudiced against a security, he hesitates to recommend its purchase. Something of this spirit in investors foretells a low price and narrow market. So far as apparent on the surface, the bond may be excellent, but such an attitude is generally not without its foundation.

Prejudice against a certain class of securities may pervade an entire community. In some of the Western States, especially in farming sections, for instance, a pronounced antipathy exists against municipal bonds. Sad and wise as the result of past experience with wholesale repudiation, they will have few of them.

Consistent with this attitude they issue few such obligations, holding to the theory that bonds are detrimental to a community. So rooted in this are they that some sections mutually agree to stand a five- or seven-year extra levy of taxes in order to build a new court-house or a bridge rather than have a bond issue.

On the other hand, sentiment in its favorable expression often makes a market. The spirit of neighborliness and pride so pervades some sections that local issues will always have preference. Patriotism and business are indeed sometimes mingled in this way.

Western sentiment against municipal issues shows in a measure that the class of a corporation influences the market for its bonds. The time is now when the investing public is discriminating and bonds of some corporations are slow of sale and low in quotation. In proof of this is what every observer of the market

knows—that the general favor in which railroad bonds are held makes some of the lower-class issues bring higher prices than mortgage bonds of industrial companies. Again, municipal bonds, generally very good securities, are not as marketable as most railroad bonds.

Corporate conditions are largely responsible for this state of affairs. That bonds of older and larger railroads should be universally considered as a high-class investment is due to the fact that they have established a position which gives them a standing in the world of credit. Of late years earnings have been put into the properties and greater operating efficiency and earning power have been the order of the day, so that investors are coming to regard them with increasing favor.

Industrial issues suffer correspondingly for a number of reasons. Some of these corporations are top-heavy with capitalization. Often too much of this is bonded debt. Their operations are veiled in secrecy and their reports are far from illuminating, if made at all.

In the consideration of government and municipal securities, corporate conditions too are a factor, but of a different type. With them it is generally a question of public revenue—whether a large tax can be collected when needed; extent and richness of resources; the quality of laws extant. United States Government bonds, assisted by an artificial market, sell at higher prices to-day than those of any other government in the world because all these questions may be satisfactorily answered. The confidence of the world has been won financially, diplomatically, and politically.

The relative effect of conditions on the bond market in general is open to discussion, and indeed can never

be definitely measured. Perhaps the strongest influence is exerted by the state of the money market. Though not coincident, the bond market and money market are bound together in close association. To understand either means a fundamental knowledge of the other.

"Tight" money, such as cannot be easily obtained except at a high interest rate, and "easy" money, easily obtained and generally at a low rate, affect the bond market noticeably. The former—a disgrace to the monetary system of the country, as many bankers think—usually comes about when money in large volume leaves a money centre. New York, in particular, suffers each autumn when the need of currency for crop-moving is supplied. At other times high money is caused by intense activity in general business. The great body of investment capital may be so remuneratively employed in active business as to absorb great amounts. Or, again, large financial transactions, involving the transfer of much money, may produce the same effect.

Naturally, while high interest rates prevail in one place, idle funds in others will be drawn there, the interest return on bonds offering no attraction. So tempting are the opportunities sometimes for high rates on loans that bonds are thrown into the market to obtain the funds. This, with the low ebb of investment buying, depresses prices and reduces transactions to a minimum. A direct connection therefore is evident between the falling off of bond purchases and excessive interest rates. Money stringencies, however, are essentially local, although the year 1907 will go down in history as witnessing this condition of affairs almost world-wide. While New York is in the

throes of "tight" money, Chicago may be enjoying easier rates, so that bond-buying at that point might not be seriously and directly affected.

Easing of money rates and relaxation in general business is sure to be reflected in the bond market. Bankers begin to bid for new issues; banks, trustees, and investors begin to buy. In fact low money rates are apt to create a broad demand for most classes of securities. Not only do such interest rates enable bankers to readily handle large blocks of securities, but this stimulates the demand by turning all idle funds into bonds. Whether these funds belong to savings banks, trust companies, national banks, or investors they thus receive a better return than is afforded by the money market. With surplus funds at hand, investors everywhere naturally turn to bonds. As a general proposition, "easy" money accompanied by prosperous conditions throughout the country induces activity in this branch of the general market.

The other branch, the stock market, is likewise sensitive to the fluctuations in money rates. In a measure, its activities are responsible for the rates. Immense sums are required to finance speculation, establishing enormous loan accounts and absorbing funds. But a decline in the stock market, because of monetary conditions, does not come so quickly as in the bond market. Profits from share investments and in speculation for the rise are so tempting that capital cannot readily be drawn into the market for long-term loans such as are most bonds. Consequently, a declining bond market may accompany a strong and advancing stock market. The transition which brings this about is generally a slackening demand for good bonds with a corresponding increase for those

of a speculative character, and eventually few bonds at all and largely stocks. Under ordinary circumstances, a strong investment market is sometimes the precursor of a strong stock market, but they often move in opposite ways.

While this is reasonably true of the general market, in individual cases it is different. Bonds of a company generally rise and fall in price in sympathy with its stock, the extent being largely determined by the kind of bond and class of stock. This is particularly noticeable with convertible issues, where the fluctuation is in correspondence with the chances of profitable conversion. Such was the case with Atchison, Topeka & Santa Fé bonds not long ago. In one day alone, a heavy decline in price occurred. The stock running down from $108\frac{3}{8}$ to $103\frac{1}{2}$ induced heavy transactions in that company's convertible issue and the price of these bonds dropped from 109 to $105\frac{3}{8}$. Underlying such declines, of course, are special reasons, but the case is typical of the fact. Again, the price that will be realized on a new issue is apt to be contingent upon the price at which existing securities of the company are selling. With the stock selling at high figures, the inference may be safely drawn that interest on the new bonds will be promptly and regularly paid. Announcement of a bond issue may affect the stock of a company adversely. It may be so unpopular a procedure with some of the stockholders as to cause an immediate decline in the stock, which in turn would affect the definitive bonds when issued.

For want of a better figure, the general conditions which seriously affect the marketing of bonds may be likened to environment, making for their woe or weal. There are yet others to reckon with. A bond issue is

a success as much because of what it is as because of where it goes. Perhaps the former is the major consideration—that is its heredity.

Analyzed from this view-point, as it always is, a number of considerations come quickly to the fore. Many times these are the governing factors in the selection of a bond. Irrespective of technical considerations, however, some investors have strong preferences. Three and one half per cent. bonds, for instance, are entirely unpopular with private investors, who would rather pay a high premium on a four per cent. issue because of its greater convenience and better marketability. The three per cent. bond is likewise fast disappearing. Some investors will consider only railroad bonds; others municipal issues; while still others—and these constitute by far the largest class—will purchase any security the safety and desirability of which are demonstrated to their satisfaction.

What a bond is, makes desirability and contributes toward its safety. Its very name often decides this immediately; such names as debenture, income, and convertible establish the identity quickly and, of course, make their own market largely. The name of a security often helps sell it though it may be inferior to some other. Inferentially this is proved by the eagerness everywhere to get into every title possible the word *first*—a few years ago *first* and *mortgage* were the magic that sold almost anything that looked like a bond.

The character of a bond as to its speculative or investment nature determines its market largely. A class of investors readily take bonds which are considered a fair commercial risk. They prefer to

invest in something like junior mortgages or convertibles; something that will enhance with growth; something of not the highest investment character and absolutely secure which has reached its full appreciation in value. Convertible bonds, for this reason, are easily sold, hence issued largely. So long as these investors can get such bonds at a discount they will not buy many first-class securities at premium. They are willing to sacrifice one essential, safety, for another, profit.

The element of security in an issue often differentiates its holders markedly. Fiduciary institutions, for instance, may better err by ultra-conservatism in investments than take undue risks. The price of a bond generally varies inversely with its security; the lesser and more inferior it be, the lower the price. The inferior bond may sell below par while a good first mortgage bond of the same company and at the same interest rate may be above par.

Of prime consideration is the interest rate a bond carries. This is a factor in the determination of what the bond returns. Old line and institutional investors may wish a little better than average return but are apt to look with suspicion upon a very high rate. Yet in this does the question resolve itself into others such as individual preference, degree of security consistent with the return, etc. Another element affecting return and consequently affecting the marketability of a bond is its taxableness. Other things being equal, the imposition of a tax is a material influence in narrowing or localizing the distribution and depressing the price. Fully alive to this, nearly all public corporations issue their securities tax-free. Some bonds are issued tax-exempt in certain States and therefore are particularly desirable in those States.

The element of time is involved in the profits from an investment. Many investors, especially institutions, do not care to have their bonds subject to termination at almost any time. Their investments are made to hold. They prefer to be able to calculate closely net return. Therefore, sinking fund provisions or privileges of redemption, rendering uncertain the life of a bond, work to its detriment and this feature of undesirability is reflected in its price. In part explanation of the low bids the Government received for the recent issue of Panama bonds is the fact that many considered the security as practically a ten-year maturity owing to the redemption privilege.

The credit of a strong company, in the form of guarantee, back of the bonds of one less strong or subsidiary, contributes greatly to the marketability of those bonds, and again, any special privileges accompanying an issue assist toward this end.

A full development of each of the foregoing is not necessary to show the reciprocal effects of price and distribution in the bond market. Generally, distribution is a determinant of stability or fluctuation in price. Conversely, bonds just around par, one way or the other, are most easily sold and in general favor. Fluctuation, however, is relative; as applied to U. S. Government issues, wide fluctuation means comparatively small variation in price. Changes of from one to two points within a short period would be considered unusual, while a movement of ten points in some speculative issue might not be considered extraordinary. On the whole, bonds do not fluctuate like stocks. The bond market will frequently remain at about one level for several weeks.

The ever-changing demand for bonds is at least at

two periods of the year peculiarly augmented. In January and July great sums in dividends and interest are disbursed to investors. Upwards of $175,000,000 passes in this form each January in New York City alone. Reinvestment of this naturally stimulates activity in the bond market. As an index to its extent it is interesting to note that the figures of the New York Stock Exchange, which represent only a fraction of all business, will show total sales for the first five days of some years largely in excess of the average for many other days.

Up to this point we have given weight to practically none but financial considerations—money market, security, reinvestment demand etc. Others there are that cannot be ignored in a study of the subject. Prominent among these is the prestige given certain classes and certain issues by favorable legislation. Making a bond a legal investment for savings banks, trust funds, etc. enhances its value, generally to the extent of premium, and establishes a special demand. Bonds that are legal for New York and Massachusetts have just such a special market. Prohibitory laws have the effect of restricting the market for some bonds to certain localities. Debenture bonds, for instance, are not a legal investment for New York savings banks, hence a large issue by the New York, New Haven & Hartford R. R. about three years ago was practically absorbed by the New England market alone.

Political conditions—international, national, and local—all with greater or less force affect the bond market. International affairs have a far-reaching effect and others of a lesser scope are less universal in their effect. Under the stress of war the bonds of conflicting nations are sure to suffer in

proportion to success or defeats. In 1905, disasters suffered by Russia caused an average decline of 20 per cent. in her issues. Immediately after the fall of Port Arthur, Russian 4s of 1889 were quoted at 91¼ while Japanese 4s stood at 76½, a difference of nearly fifteen points in favor of the Russian. After the battle of Mukden and the destruction of the Baltic fleet the Japanese securities had drawn level with the Russian. Shortly after peace was firmly established, the Japanese 4s advanced to 92½, making a gain of sixteen points. Later the development of internal revolution and forcible dissolution of the Duma were factors in forcing the securities of Russia to low levels.

In Great Britain the quotations for consols are regarded as a fair barometer of international affairs. Any improvement in the aspect of foreign politics is sure to be felt in that direction. In our own country, the result of a Presidential election is a prime factor. The re-election of President Roosevelt in 1904 brought into the bond market great numbers of investors who had waited for some weeks until the result was known. When the silver question was up in 1896, just before election day New York City could not sell an issue because of low bids. One week after that day, an accumulated batch of over sixteen million was ten times oversubscribed and at satisfactory prices. Local conditions sometimes have a depressing effect on investors. Municipal ownership agitation in New York City in times past was considered largely responsible for the depreciation of its securities and the low prices bid for new issues.

Since the expansion and contraction of the bond market is the reflex of conditions, financial, political, economic, and social, it follows that the wider the dis-

tribution the less baneful their effect on a bond issue. Every banker is conscious of the fact that, generally speaking, the more holdings are concentrated the greater the possibility for ill under adverse conditions. He therefore seeks primarily to establish as wide a market as possible. The desired achievement in this respect is to create an international demand, in the accomplishment of which banking and diplomacy often go hand in hand.

A distinct feature of the bond market for several years past has been the growth of the American demand for foreign issues (practically all government) and the European call for American bonds. International investment of capital is progressing on an enormous scale and at a more rapid rate than ever. Foreign government issues have been quoted to investors in this country for some years, but not until comparatively recently has any real interest in them been awakened. Exactly the same is true of American investments in Europe.

The increasing attention our financiers are paying to South American finance, both national and private, and the growing disposition of the investing public to consider foreign issues are significant. The large Cuban issue was eminently successful, perhaps because of the measure of protection afforded to investors. The Mexican loan payable in gold dollars was taken somewhat in the United States. British consols, French rentes, and German marks are all quoted and dealt in here. Consols were held in some quantity by American banks because of their liquidity as an asset, but their declining price has made them unattractive to such institutions.

We are, however, beginning to be more or less

intimate with the government finances of many other nations. We no longer think of United States Government bonds alone when we speak of government securities. Our relation to Japanese finance has already assumed considerable proportions and the way in which the Japanese bonds were taken by investors and various financial institutions surprised even the bankers that handled them.

New York has come decidedly to the fore as a world bond market; it now handles yearly millions of securities of other nations. It has assumed a world-wide importance in this respect.

American securities in Europe are ever gaining a stronger foothold. While Europeans have held our securities ever since the Civil War there now seems to be a marked revival of interest. Englishmen are taking more and more bonds as they find their home field of investment becoming restricted and they have developed a profound faith in the generally sound position of American industrial and financial affairs. In London there is a large and growing market. Indeed that is the place where whole issues of American debentures find absorption, since that form of obligation is more in vogue in England than here.

In France, a burdensome government tax precludes the possibility of extensive investment in American bonds, to which are added other requirements that are restrictive. To be legal there, securities must be listed, involving a second tax, and the issuing company must maintain an office in France. In the case of the Pennsylvania loan, these obstacles were overcome largely. The securities were not put out as bonds of the Pennsylvania R.R. but as bonds of a French investment company, which latter were secured by the

deposit of the former as collateral—in this way the laws were evaded.

Germany holds a favorable attitude toward American securities and buys to the extent of her available capital. Some thirty bond issues are listed in Berlin and the investment demand is comparatively strong where a good yield may be derived. The large banks are educating the people more and more in favor of American bonds.

But the best field abroad for such bonds is Holland. For more than fifty years Dutch investors have been accumulating until now the total is close to $800,000,000; they buy in greater proportion than any others in Europe. Bonds that are sold in Holland usually remain there as investments although there is more or less trading in other kinds of securities. Little buying is done by other nations, but there is a widespread interest developing that augurs great things for the future.

CHAPTER VIII.

HOLDINGS.

To be told that a billion dollars par value of bonds, a veritable plethora, is put into the market each year is to severely tax the comprehension. Where, possibly may be asked, can such a stupendous amount of these securities alone, not to mention any others, find investors? At first thought it seems an impossibility, but under the light of some analysis it becomes plainly evident where they find lodgment.

Complete statistics are unobtainable, but several excellent books are published annually that serve as a guide to the financial community. Still the magnitude of the task of compilation of such figures and their ever-changing totals quickly render them of more or less relative value only. These publications classify according to the name of a given security all bonds held by savings banks, trust companies, insurance companies, and other financial institutions as rendered annually in the official reports made to the different State authorities, and designate by groups the leading banks and financial institutions which have purchased a given class of securities. Such reports are readily accessible, since State banks, savings banks, trust companies, etc., report to State commissioners appointed for the purpose, while national banks are responsible to the Comptroller of Currency.

Holders of securities are of two kinds, institutional and individual; the former buy with other people's money—the latter with their own. It is commonly believed that the former comprise the greater portion of the market and that individual holdings are comparatively light. On this point, in speaking of the Wall Street bond market, the *Wall Street Journal* has to say:

> The tendency of bond market critics is to magnify the importance of the institutions and minimize the importance of individuals to buy bonds. When it comes to a question of aggregates, the institutions take second place to the individual. Out of the $3,000,000,000 or so of bonds floated during the past five years, it is probably safe to say that the scattered individual public has bought over $2,000,000,000, while banks, trust companies, and investment institutions have taken about half that amount. The aggregate of all bonds and stocks held as investments by the banks and trust companies of the United States in 1907 was about $4,500,000,000.
>
> The individual investor buys in small lots, comparatively speaking. Occasionally the executor of an estate will have $1,000,000 or over to put into bonds, but this is the exception rather than the rule. The average buyer in Wall Street is probably the man who buys from five to fifteen bonds, pays for them, and takes them away. It is this class that buys a very large part of the huge issues floated through the Wall Street market.

Whatever may be the importance of the individual investor, it cannot be gainsaid that institutions are a great factor. The character of this corporate investing and the relative importance of each class of institution is interesting.

Undoubtedly the insurance business, as a whole,

constitutes the largest single market for high-grade securities that the country affords. It is a class of corporations comprised of fully seventy-five different types—life, fire, accident, guarantee, and a host of others, whose basis of security against loss is bonds to a very large extent. They hold some of nearly every kind but chief among their investments are railroad bonds. Using the best available figures as a basis, it is safe to say their aggregate holding of railroad bonds is more than $1,000,000,000. A poor second in total come State and municipal issues, of which approximately $150,000,000 is held, while government bonds both home and foreign fall far below these amounts; $25,000,000 would cover the entire holdings of United States Government issues and something less those of foreign origin.

Concentration of these institutions in the East naturally puts their home States in the lead when bulk is considered. Being the domicile of the three great life companies, New York takes first place; following which and of about equal importance are Pennsylvania and Connecticut, with Massachusetts a good third, and the other New England States come on in more or less uncertain order.

As a factor in the investment market, savings banks are second only to insurance companies. These reservoirs of a multitude of small accounts absorb great masses of securities. Here, too, New York leads, Connecticut being second, and the other New England States and Pennsylvania following. The character of their business requires a combination of well-nigh absolute security with fair return; hence, bonds yielding but a small income, notwithstanding their safety, cannot be largely among their investments.

For many years the strength of a savings bank was judged by the amount of "governments" it held, by reason of their absolute security, value as quick assets, and fair interest yield. In the last few years conditions have been changing; the unprofitable yield and the tremendous commercial and railway development of the last decade have made bonds of this latter character good investments. Analysis of the reports of many savings banks shows a great tendency to decrease the holdings of "governments." In fact, it will be found that some of the strongest institutions have sold all bonds of this nature and reinvested the proceeds in other securities of merit, ready market, and good income.

Ten years ago the combined investments of savings banks of the country in United States bonds were not less than $150,000,000. Ten years ago these institutions in New York State counted among their investments $111,000,000 of U. S. bonds; to-day they hold of this particular class of securities less than $5,000,000 and in the same period they have increased their ownership of railway bonds from practically nothing to $250,000,000. The same ratio holds throughout the country, for what New York does, they all do.

State laws rather discriminate in favor of municipal bonds as proper investments for savings banks, the evidence of which is clearly seen in holdings of this nature. New York savings banks, for instance, hold approximately $400,000,000 of State and municipal obligations, of which fully $125,000,000 are of New York City. Thus is it that these laws affecting their investments have a marked effect on holding of bonds both as to character and extent. Statutes of different States vary greatly in respect to permission of investment;

some are stringent, others liberal: some prescribe general qualifications, other are specific; some laws definitely name the cities whose bonds may be held, while others state general qualifications as to population, etc.[1] As new avenues of investment are opened the laws of many States are constantly amended, being made broader in their provisions and standardizing in their qualifications. In proof of this is the fact that barely ten years ago these institutions were quite generally not allowed to purchase railroad bonds.

In point of restriction of investment the laws of New York State are the most rigid of any State in the Union in the interest of safety. Limited by law to gilt-edged governmental securities, real estate mortgages, and first-class railroad bonds, New York banks are shut off from many sources of revenue open to similar institutions in other States. In Massachusetts, for instance, street railway securities are approved. Particularly strong in contrast is the State of Pennsylvania, whose savings banks are often referred to as earning such large amounts as would invite subjection of earnings to taxation. A Pennsylvania savings bank has legal power to invest funds of depositors in the bonds of any city, county, town, or village in the United States, regardless of debt limit or record as to repudiation. Very few of the western and central states put any close restrictions upon the trustees of their banks.

The loss of earning power to the New York banks is the gain of the depositor in safety, and recognition that a savings bank must first of all safeguard its funds, rather than conduct itself as a purely profit-earning

[1] For synopsis of these laws see *Commercial and Financial Chronicle.*

enterprise, involves a further recognition that the greatest economic force operating to-day is that of the savings banks.

National banks occupy a distinctive and peculiar position in the field of investment. As holders of upwards of seventy-five per cent. of the outstanding issues of our Government, they constitute a special market, a situation brought about more from necessity than choice.

In the first place, such a bank cannot obtain its charter unless United States Government bonds to the amount of twenty-five per cent. of its proposed capital stock up to $150,000, and $50,000 as a minimum when the capital is greater, are deposited in the Treasury. Obviously, then, a constant demand of no inconsiderable proportion exists because of the increasing number of such institutions. Many of these new banks proceed at once in what is generally done by those already established—the issue of notes, *i. e.*, circulation, all of which must be secured at Washington by the pledge of Government bonds. Furthermore, when any receive deposits of public funds from the Government, bonds to the amount obtained must be pledged with the Government.

Of themselves, these three sources of demand are sufficient to care for immense quantities of bonds, but like the other institutions, these banks put some of their funds into straight investments, which further augments the demand. Such investments in Government bonds, of course, are comparatively old, but within the past few years national banks have become more largely than ever holders of bonds of different types. What prompts this buying varies with different banks. The appearance of a substantial bond item

in a bank's statement has its effect sentimentally; in many people it begets a greater confidence in the bank. Many banks carry some bonds as a secondary reserve, preferring to hold a percentage of bonds as a precaution of safety rather than loan on commercial paper to the extent of their abilities, while others have none at all. They are divided in their opinions as to the relative desirability of holding bonds or commercial paper as quick assets.

As a general rule, the less important a bank is among financial institutions the greater the bond holdings, the large and powerful banks in the cities holding proportionately few, using their funds in different ways. It has been estimated that holdings of such "bond reserves" are well around $500,000,000.

There has been an enormous growth of trust companies within the past few years and with their growth absorption of hundreds of millions of bonds. Except in a few States, they are under little restriction of law as to their investments, in striking contrast with the strict supervision of savings and national banks. The effect of this is quickly seen in comparison of their investments with those of savings banks. New York State trust companies hold approximately $300,000,000 of stocks and hardly more than $100,000,000 of bonds. Even so, this is fully fifty per cent. of the bond investments of all trust companies in the country. In this State their capitalization may consist of Government, State, and Municipal bonds, but only ten per cent. of it must be deposited in such form with the State Comptroller. In New York City, where are located the majority and strongest of the one hundred or so trust companies of the State, one third of the reserve of fifteen per cent. of deposits must be in bonds.

Still other institutions must be considered—building and loan companies, colleges and institutions of learning, etc. Endowments of educational corporate bodies are almost entirely represented by securities, generally bonds, nearly half of which are railroad issues. Add together the great number of these scattered throughout the country and the aggregate of their endowments mounts high into the millions of nine figures.

In the group of universities Harvard, Yale, Chicago, and others are to-day endowed in amounts from $18,-000,000 to $25,000,000 each, while Leland Stanford of California lays claim to possibly $45,000,000. Many of the smaller colleges are proportionately as well provided for.

From these incomprehensible figures it would seem that institutional investments far outweigh the private, nevertheless so excellent an authority as the paper quoted is difficult of contradiction. Certain it is, however, that a great mass of people of small means and limited income put their savings into life insurance and savings banks, thus leaving to others as institutions the investing of funds thus concentrated.

The fact that the great and strong fiduciary and financial institutions are nearly all located in the eastern part of the country has, of course, a vital bearing on the bond market, geographically considered. Proportionate holdings are by no means the same all over the country, some localities holding much more than others. Economic conditions account for this. Manufacturing states (which are the eastern) are the great security-holders, while the strictly agricultural states are almost a negligible factor. It is true the juxtaposition of financial centres and the industrially

developed portions has much to do with it. Institutional investing in the agricultural regions is at a minimum; it would be useless to invest in bonds in a developing portion of the country where money can be loaned at anywhere from six to ten per cent. In semi-developed interior sections demand for bonds is felt somewhat, since their banks are not always able to loan all accumulating funds.

Locality not only affects the extent but also the character of holdings. Although unimportant, it is interesting to know that a goodly portion of the American market for foreign bonds is among foreigners. In a community of certain nationalities bankers will generally hold some bonds of the home country, which find a more or less ready distribution.

CHAPTER IX.

INTEREST.

One of the fundamental distinctions of finance, that, strange to say, must yet be learned by many, is the difference between interest and dividend. Such ignorance as to confuse annuity with interest is even met. Lest the distinctions be not clear it should be said that interest is but the representation of cost to a borrower for the privilege of using another's funds. The "price of money" is an idiomatic expression of Wall Street for the situation. Dividend, so different in nature, is a profit accruing to the owners of the business, and is distributed pro rata. Vitally different from either, and arising out of transactions unlike the above, a pure annuity is a sum of money payable yearly, to continue for a given number of years, for life, or forever.

Many kinds of financial transactions involve the payment of interest, but it is with the bondholder, as a creditor of a corporation, that we are concerned.

There is yet another distinction, most important of all, to be remembered. Thousands who hold bonds are under the misconception that the rate of interest indicated on their bond represents their return; if it is a five per cent. issue, so much they receive. Bought at par, this would be true, but probably more was paid. The average investor knows not overmuch about yield and so is not always aware that the net

return on a bond is not always as great as the rate of interest which the bond bears. Should a bond be purchased above par it is at a premium—below par it is at a discount: the former decreasing, the latter increasing the yield from the interest rate. Computation of yield is an involved mathematical process. This yield or net return is generally known as the "basis" and bonds are spoken of as selling on a two, three, or four per cent. basis or whatever the figure may be.

On the great majority of bonds the interest rate is definite; the contract is for so much annually—no more, no less—during the life of the obligation; it is fixed and must be paid. All others may be said to carry contingent and indeterminate interest according to circumstances. These circumstances are generally the result of arrangement or of success or ill-success of the issuing corporation. Few types of bonds fall into this category, the most prominent being income bonds. On this type of obligation it remains ever contingent and is so provided in the bond.

With this, as noted in our classification, payment of interest varies in time and often in amount, although its maximum is stated. In effect it is equivalent to a dividend, since it is dependent upon the earnings and paid only if earned. Yet it cannot be correctly so called. References to it as such, as found in the following quotation from a recent financial paper, are misleading: "The directors of the corporation have authorized an initial dividend of five per cent. on its $3,000,000 of income bonds, payable out of the earnings of the year ended June 30th, 1907."

Division of large issues whose interest is conditional into series such as A, B, C—1, 2, 3, often enables pay-

ment of interest on the earlier ones if not on all. The old debentures of the Wabash Railroad were a case in point; interest was sometimes paid on series "A" only. Further illustration is found in the incomes of the Georgia Central Railway; although all series are entitled to five per cent. interest, the firsts may receive their full amount while the seconds only one or two per cent., and the thirds nothing. If the management of a corporation has great faith in its growth and earning ability income bonds may carry cumulative interest, but, as a general rule, provisional interest is not made cumulative on incomes.

There are at present not a few bonds whose interest has been "scaled." Out from the fires of reorganization, their holders have been glad to accept the best terms possible. At such times it is generally found necessary to cut down interest somewhere, but the pruning must not be more than sufficient for successful operation. A nice discrimination between the issues of a property is therefore necessary that justice may be done. By agreement between the company and a majority of the holders reduction is occasionally made for a term of years, with return to the old rate thereafter; but permanent reduction is the usual course.

The position of interest charges in the finances of a corporation brings about the reductions in reorganization. Chief among fixed charges and payable before dividends, it is obvious they must be reduced within a conservative estimate of net earnings to make the property a going concern once more.

How great an item the fixed charges of interest are may be inferred from the fact that interest on all railroad bonded indebtedness in this country approximates $250,000,000 annually. This covers fairly well the

entire debt of this class, as hardly more than one twentieth of the bonded indebtedness pays no interest at the present day. Expressed in percentage of income, this aggregate interest charge represents about fifteen per cent., over against which is about nine per cent. paid to the owners in dividends.

Interest payments on municipal, Government, and other bonds are, of course, enormous, Government bonds alone calling for the disbursement of something like $30,000,000 yearly.

These great sums are derived in ways entirely in keeping with the nature of a corporation and its business. The Government has numerous sources of income, chief of which is receipts from custom duties, a form of indirect taxation; municipal corporations must necessarily derive the bulk of their income from direct and general taxation. There are, however, some municipal obligations for the payment of which specific revenues are pledged and which do not fall as a direct burden on taxpayers. Income from docks, for instance, may produce a net return equal to interest on the bonds and provide fully for a sinking fund for their retirement; again interest of water bonds is provided by water rents. There are also many issues whose interest is provided by special assessment limited to one locality.

Railway, industrial, and miscellaneous corporations must gain the necessary funds from the operations and profits of business and sometimes at the expense of betterments and improvements. In the railway field, the particular portion of the line which an issue may cover must produce its interest. Traffic agreements, *ad infinitum*, are made with branch and subsidiary lines whereby interest on

their bonds is provided. In some cases a road is allowed to enter another's terminal on payment of interest on the station bonds; in other instances this terminal bond interest is paid *pro rata* by the entering roads on a per train basis.

The great bulk of all bond interest is disbursed semi-annually, much of it on an early date of January and July coincident with the publication of financial statements of most corporations. The fiscal year being from July to July it is largely a matter of convenience to use those dates. A few pay interest in April and October and some pay interest quarterly. The U. S. Government pays all its issues quarterly. It is a matter entirely optional with the issuing corporation. Also how and where it shall be paid is not governed by any strict rule. The character of the bond, whether coupon or registered, determines this in some measure. Since the centre of the bond market is New York City, it is only natural that investors should be enabled to receive interest with some facility and convenience. For this reason most corporations maintain a fiscal agency in that city with a trust company, bank or banking house. Kansas and practically all its minor civil divisions make their bonds payable at one bank in New York.

Issues taken locally, away from New York, of course are paid at home. Often two or more places are designated as where interest will be paid; a town in Colorado might pay at New York, Chicago, and home. Especially is this the case where a bond has an international market. Funds are kept in the various financial centres to meet these periodic demands and it is generally stipulated that payments will be made at fixed or current rate of exchange.

Registered bonds are always paid by check sent from the home office. Ordinary coupons are usually presented in an envelope on which is shown the name of the security and name of the person or institution presenting same, and upon verification are paid. Registered coupon issues are often made payable only to the order of the registered owner.

Where the bond is registered, the books of record are closed for a certain period; that is, no transfers are made during that time. The holders of record on a specified date would receive the amount of interest on the bond in question. The Government books close one month before interest is payable. Should a bond be negotiated during this period, the seller will, of course, receive the check, but the trade may be so made that it is turned over to the purchaser, or it may be made ex-interest.

Until comparatively recently, the rate of interest on investments has steadily declined; the day of very large returns on securities offered to the general public is over. For more than a quarter of a century the value or earning power of money has been gradually declining toward the European level. During these years this constantly lowering interest rate has been the discussion, reference being made to England and the continental countries of Europe and the position which they occupy in this particular. This argument was made with some force by the insurance companies when being investigated in 1905; their attempt was to show that 3 or 3½ per cent. is the most that could be earned on deposited premiums.

As a matter of fact, there has been a steadily declining plane of interest for some years back; but, simultaneous with a higher rate that is now being reached in the

older countries, there is something of an upward turn in the rates for long-time loans in this country—the low point of net income has apparently been reached. The German Government only recently made its interest rate officially 3½ per cent. whereas for some years past it had been 3 per cent.

The fact that interest rates are being gradually raised on some classes of bonds emphasizes the growing tendency of investors to demand a larger income from their investments than has satisfied them in the past.

Insurance companies, savings banks, and others will hardly take less than from 3.80 to 4 per cent. now, whereas 3.50 and under was readily taken a short while ago. The savings institutions are compelled to seek more remunerative investments. If they would continue to pay 3½ or 4 per cent. to depositors they cannot very well invest in bonds yielding less—for instance government issues, yielding 2 per cent. and less. savings-bank depositors therefore have felt the effect of a low yield. In fact, very few such banks in the country pay as high as 4 per cent. Those that continue to do so, do it in large measure on the strength of investments made years ago when good securities were to be purchased on a 4, 5, 6, 7, and sometimes 8 per cent. basis. At the present time the average yield is hardly 4 per cent., and a little less from the better class of securities. The old bonds purchased years ago are rapidly coming to maturity and being refunded by those of lower yield.

That investors should demand larger returns than heretofore is not surprising; development of the tremendous resources of our country affords ample opportunity for a fair return upon capital. Their demand is for a yield equivalent to the market value of money

and representing its self-relying earning power. In no other direction is this more evident than in the market for municipal securities. A conspicuous feature during the year 1905 in the sales of this class of bonds was the rise in interest rates. Less than $6,000,000 at 3 per cent. were put out in the whole country in that year. In the following year the upward tendency was more markedly displayed than before, for, as is well known, New York City was obliged to abandon 3½ per cent. bonds for 4 per cents. A few years ago the city was able to float $9,000,000 of bonds bearing 2½ per cent. interest and to sell them at par and above. Conditions then began to change. It was compelled to issue obligations at 3 per cent., then at 3½ per cent., and recently has found it no longer possible to put them out at 3½ per cent. and the rate has been advanced to 4 per cent., 4¼ per cent, and 4½ per cent.

A comparative statement of figures s illuminating and well-nigh conclusive in this instance. The higher basis here given is in nearly every case the result of an increased interest rate.

	1900 *Basis*	1906 *Basis*	1909 *Basis*
Chicago . . .	3.10	3.80	4.00
St. Louis . . .	3.10	3.35	3.99
Boston . . .	3.05	3.50	3.87
New York . . .	2.98	3.52 3.70	3.98
Philadelphia . . .	2.90	3.35	3.83
Cleveland . . .	3.10	3.50	3.85
Cincinnati . . .	3.08	3.35	3.75

In some measure, this condition of affairs may be accounted for because of the rapid industrial development going on which absorbs capital under too favor-

able terms to investors to leave much for investment in low yield municipal and Government bonds.

Our Government bonds are apparently a flat contradiction of the statement that interest rates are rising in greater or less degree, according to the class of bond. They have consistently dropped in the interest carried until the later issues are practically at the minimum—2 per cent. Sufficient has been said to show that it is only because of the unnatural conditions under which they live that this is possible. The Government has so reduced its rate that the yield is now at a point where they cannot be bought except by those to whom income is no object.

It is true, public credit of the country generally is high, nevertheless, they sell on a basis returning far less than the issues of any other government. Figures speak louder than words. At the opening of the Civil War national credit was on a 12 per cent. basis whereas now it is less than 2 per cent.

Equally as marked for their descent, although it has not been so great, have been interest rates on railroad issues. For many years such bonds have been available and a profitable form of investment. There was a time, however, in their early existence when they sold with difficulty, as they had not established a place in the confidence of the public. In those days when the country was young and the railroads primitive, there was little inducement to invest in their securities and so they were compelled to borrow not only under high rates but even sell at a discount. Many of these old issues bore 6, 7, and even 8 per cent. From such figures the rates have dropped until now the basis for the entire funded debt of all the railways of the United States is approximately 4.25 per cent.

In 1903 statistics showed it to be 4.47 in comparison with which it is interesting to note, the capital stock was on a 2.70 basis.

Advances in rate and basis of railway bonds are now slow and slight since these securities already return a fair income. Such advances as occur from time to time are largely confined to special types and cannot be said to be general.

With industrial corporations, prevailing rates are higher than railways and much above Government and municipal figures; investors exact a high return. The great majority of recognized bonds of this class bear 5 and 6 per cent., and since many of them sell below par the yield is very high.

CHAPTER X.

SECURITY.

It has been said for investments that there is no such thing as absolute safety and from experience many are ready to concur. Theoretically, it cannot be denied; practically it is an extreme statement the refutation of which is a goodly number of investments, especially bonds, that have stood the test of time until now and undoubtedly will for many years in the future.

For a few lenders willing to take some risk, there are thousands, cautious and conservative, who wish to be certain of their return. Besides institutional investors, whose attitude in this regard is well known, there are thousands, without aptitude or inclination for business, who must put their money into securities that will give absolutely no anxiety nor concern until maturity.

The acme of investment excellence is a bond combining three qualities; *safety*, *profitableness*, and *permanency*. Absolute safety, assured profit and unchangeable conditions ordinarily are relatives. There are investments more safe than profitable; others profitable but lacking safety; and it is not difficult to find many neither safe nor profitable but decidedly permanent. Any one of these three qualties may appeal most strongly to an investor but this again depends on other conditions. Concededly, the great majority

of investors buy with an eye single to the first; they are unanimous in their demand for safety, making it the foundation virtue. Pressed for an enumeration, however, of its elements in various bond issues or for an analysis of the position of a bond they would be at a loss.

Happily, the ability and integrity of the banker safeguards them and his word has come to be largely as good as his bond. His recommendation is based on his knowledge; his knowledge of a bond is analytic; his training and business organization enable him to measure the security of a bond with accuracy.

In consideration of security two things are kept in mind; the degree of certainty with which one may expect to receive back his invested capital—the security of principal; and, the degree of certainty with which he may expect to receive the increment from his invested capital, at the time and in the amounts stipulated in the contract—the security of interest. One, the first mentioned, is much the concern of a distant future; the other is a matter of the next moment, so to speak, for interest begins immediately and its first payment is not more than six months away.

Ordinarily each is considered on its own merits but final analysis reveals a close relationship and shows the security of principal to be greatly dependent on the safety and punctuality of interest. In fact, favorable consideration of a bond from the interest standpoint almost invariably involves similar judgment as to the safety of principal. If, for the full period of years, and with unfailing regularity one shall receive interest on his investments, it follows, most naturally, that finally his principal will be returned. Or, conversely, if continued default be made of interest, how

can bondholders expect to realize their full principal from a weak and enfeebled corporation?

From time immemorial men have been compelled to pledge their property that creditors might not suffer should they default on their obligations. Even so is it with most corporations in the greater part of their borrowings through the instrumentality of bond issue. Aside from those of public corporations, most bonds are secured by a lien on property which lien is evidenced by a mortgage. In the very nature of things it is impossible for a public corporation to give tangible security in the form of pledge of property.

The intrinsic value of property named in a mortgage may be used as a basis on which to establish a reasonably sound conclusion as to the security of the bond and is generally so treated by the practical financier and investor. Though this value is a great element of strength it cannot be absolutely the basis of confidence. Were the value of pledged property the only safe basis for judgment, unsecured bonds would be an impossibility and it is but necessary to read the lists to know that some very meritorious issues are in the market back of which there is nothing save the integrity and position of the obligor.

Seemingly the first mortgage bond and the debenture are extremes of safety; yet in a final analysis their respective values are measured by much the same standards. If safety and security of a bond be in proportion to the strength of a lien on the property of a corporation, what is the position of various classes of bonds? Consider first government issues; what shall be their claim to recognition as securities of permanent worth? Giving no lien, generally, of any kind to secure interest payments, and never any to insure re-

payment of principal, judged by this standard, they would naturally fall far short of ideally safe investments which, in many cases, is quite opposite from the facts and especially with United States bonds.

Likewise, many municipal bonds are not certain of ultimate redemption nor is their interest secured by any property lien. But in the field of private and semi-public enterprise, we find a highly developed system of security by lien on property.

Industrial corporations are slowly putting mortgages upon themselves; public utilities companies are more or less covered by such liens while the railways are buried on some sections five, six, and seven deep—a swarm of liens, First, Second, Third, Consolidated, General, Unified and what not—all are catalogued among the obligations of these corporations. The combination of mortgage security with other favorable circumstances has brought a large part of railroad issues to a position in which their security is regarded second only to that of our Government bonds.

Property underlying the great masses of secured bonds is of all kinds and classifications. Most of this physical, or apparent, security is real property. The railroads give their lands, roadbed, stations, terminals; industrial corporations, so far as the practice extends, pledge their plant and other real property and the public utility corporations do likewise. But this has not been enough: the last few years have been productive of great issues, underlying which is personal property. In the development of corporate life and the acquisition of subsidiary properties, great quantities of securities have been acquired by many corporations. These have been used as a basis for bonds, chiefly of the collateral trust type, which has proved so successful

in the market at large. Not alone securities, but other forms of personal property are used; cars and equipment of railroads, for instance. Frequently a mortgage is so comprehensive in its terms that it covers all property, real and personal, and further adds to the apparent security by including all additional acquirements with the proceeds of the bonds or otherwise. A quotation from such a document will serve to illustrate—"The bonds are secured by a mortgage on the franchises, railroads, equipment, leases, real estate, and other property now owned and hereafter acquired." Without an "after acquired" property clause, more than one issue would have been unsuccessful. By agreement or special permission from bondholders, a company may obtain the right of substitution of property under its mortgage, placing equally valuable property under the lien.

It might be said, therefore, and with some show of reason, that the feature of a bond, as a financial instrument, is its strength and ability to compel its own payment by satisfaction of its lien upon property. But it is an illusion to believe that this can be easily accomplished. Formalities without number, the long and tedious process of the law, commercial considerations and questions of polity and equity are so interwoven that it is next to impossible, in most cases, to take the property for satisfaction of one's debt.

If these things be so, wherein lies the chief element of safety and security of an investor who pins his faith on the written word? Surely, security is of utmost importance in the consideration of a bond. Answer may be made that, generally speaking, a bond is a prior claim on both assets and income. The language of a mortgage lends itself to an interpretation making

supreme the lien upon assets, but commercially speaking the mortgage is really upon the company's revenues.

Creditors of a company are most dependent for security, not upon the property, as such, but upon the business for which the company was organized. The whole property of a railroad considered as real estate and old material is worth but a fraction of the amount for which it is mortgaged and worth nothing to any one except engaged in the same business. Keeping in mind the double consideration of security of interest and principal, and that the conditions which make interest secure are really the actual security for principal, the conclusion is, that if the business is safe the bonds are safe; if the business is profitable, the bonds are safe.

For government and municipal issues there is no gauge of profit-making ability. Their security lies essentially in the ability and willingness of the people to be taxed and the resources which may be drawn upon. Some government issues, such as one or two Japanese loans, are protected by a first claim on a specific revenue such as customs duties or internal revenue on tobacco, but they are few. The security of government bonds is at once political, economic, and financial considerations and is a question broad in scope. In a country like the United States, where the resources of the people are large, where taxation has not become unduly burdensome except in special cases, and where a high standard of public obligation exists, government securities have the advantage of being of unquestioned value.

The important elements of security in municipal bonds are several. Though broad in scope, they are more defined than with government bonds. They may be studied at closer range and their position reduced to

a point where nearly perfect judgment is possible. As has been shown, generally no lien safeguards the investor, yet ultimately the burden of security is shifted upon property valuation. It is the assessed valuation which yields the tax to pay the bond. It is the ratio of the debt to real assessment which must enter into calculations. Add to these the problematical moral hazard and the technical questions of legality, together with retrospect, aspect, and prospect of the town, city, or county, in conduct, management, and development and the ground is covered. So searching an investigation is no small labor but only as it develops these points is the safety of a municipal issue known.

Safety of industrial bonds involves no fewer considerations although these are somewhat different in character. Emerging from the preliminary tests of value, many of them are on the high road to the position of stable investment securities. They have, very largely, passed through the period of experiment and stress but for patent reasons have not attained the position of government or railway obligations. Fundamentally, the security of this class of bonds lies in stability and progress in business conditions. The obligations of a strong government are far less subject to the influence of prosperity and adversity than those of manufacturing corporations. Earnings of these concerns reflect improving general conditions much more promptly than do the earnings of railroads. It is also true that when the tide of business turns, their earnings decline much more abruptly than any others.

Changing business conditions, therefore, mean instability of demand for their products or services and this, naturally, means instability in profits. Unless substantial surplusses are built up, a weakened

foundation for their bonds is inevitable. Happily, the prosperity of the times has enabled many to do this and their funded obligations are becoming more and more established in the confidence of investors.

Notwithstanding a waxing prosperity, elements of insecurity are always present. Chief among these is the danger of competition. The very success of an enterprise may induce others to enter the field.

The day of genuine competition between railway lines by paralleling or between common points is practically past. Competitive forces have been largely eliminated from the transportation problem as more than sixty per cent. of the railways are so closely united as to amount to a practical community of interest. The era of struggle for supremacy among manufacturing corporations however, is yet here, though fast fading away because of the growing tendency toward consolidation into trusts.

Other dangers lurk about these purveyors. There is always the possibility of fresh or increased burdens of taxation; always the spectre of adverse legislation on questions of tariff both at home and abroad. Still again the basis of a business may be its ownership of patents which must sooner or later expire when others may enter the field. Shipping facilities, contracts, and character of management must all be considered. In this latter there must be constructive ability, originality, and aggressiveness. The affairs of large industrial combinations must not be at a disadvantage with competitors.

Bonds of public utility corporations, those corporations that control the street-car lines, water-works systems, telegraph and telephone systems, light, heat, and power plants, are largely secured by an element

not found elsewhere, and that is the franchise. In a broad sense, the steam railways are franchise corporations but the franchise is not their most prominent asset. This right to serve the people, whether it be in transportation through the streets or supplying other needs, very essentially affects the value and stability of public utility securities. As an asset, the security of their bonds is founded more on this than in the value of plants and other property.

Along with the usual business considerations which are well-nigh classic in the judgment of industrial and railroad bonds, is this especially important matter of franchise. Its length for one thing; in case of street railways the exclusive privilege to operate is sometimes limited to a term of years. Its scope—that is, the ability to expand and freedom from limitations; and the likelihood of renewal. These, with the extent to which the services or products are necessities, give to this privilege its value and determine the safety and security of the obligations built upon it.

Most difficult, because most complex, is the determination of security back of railroad bonds. They are generally backed up, to be sure, by mortgage liens on very valuable property, (for its purposes) but the execution of such documents by such strong and homogeneous systems as the Pennsylvania Railroad or New York Central is little more than formality. Ably financed and ever increasing in strength, default on any of their obligations seems but a remote possibility.

One of the greatest factors in the strength of our railroads is the growing tendency, indeed, the avowed policy, of unification and consolidation. Great systems are being welded from branch lines, divisions, subsidiary and terminal companies; all are being

brought together in one harmonious whole. The prediction is even ventured by some that consolidation may sometime unite the entire railway systems of the United States under one general management.

Obviously this solidarity and greatness makes for fixedness of policy and consequent stability and safety of their securities.

Unquestionably, the railways have the greatest diversity in their securities. Practically, they resolve into those protected by a mortgage on the general property, those secured by a lien on rolling stock, and those underlaid by other securities. While these are the forms of security and clearly distinguished, the substance, to a great extent is in other things. No well-informed investor ever buys such bonds really expecting the property to be sold to satisfy his claim. His action does not hinge upon the question whether the value of the property is sufficiently in excess of the amount of the mortgage, but rather, as with industrials, upon the earning capacity and future growth of the company.

That permanent earning power chiefly makes value may be illustrated by comparison of the security of bonds of two lines, equal in cost of construction, length, and efficiency of operation, but one in South America, the other, say, in Connecticut or New York. Immediately is it manifest that earnings are the cornerstone of security.

Therefore, if the matter of earnings is so great a factor in the problem, it follows that the general credit and financial strength of a company are of paramount importance in the consideration of security; and the better they are the firmer it is.

An analysis of the position of a railroad must place

every vital element in a clear light and in its proper relation to all others. It must, with all thoroughness, dissect the questions, physical, commercial, financial, and personal, for out of the harmony of these come large earnings and good profits.

The geographical position of a road may be its salvation or its greatest handicap. Not alone should it serve a territory that is developing, through an influx of population and consequent establishment of new towns and expansion of old ones, but it should be favorably located with respect to its connections. Contrast the position of a small line forming essentially a connecting link between two greater systems, and that of a small branch line, a ward, as it were, of the greater company. The bonds of one are secure upon their own foundation; the others may be almost entirely dependent upon the care of the larger company. Very often the policy of a company is largely dictated by its position. If its contiguous territory is served by another line, there is, in a measure, competition. If pressed by parallel lines or in danger of this in the future, it must adapt itself accordingly; if earnings depend much on business from connections, relations with them must be strengthened.

Position is vital in determining the character of traffic. There are the "Grangers," the grain-carrying roads of the West; the "Coalers," the coal-carriers of the East, and others, the bulk of whose freight is lumber. Experience has shown that diversified traffic gives greatest stability of earnings. With but one or two classes of traffic in the main, a road might suffer greatly should a business depression affect the market for those particular commodities. A bad failure of crops might jeopardize interest payments; the ex-

haustion of natural products could leave a road almost valueless. In fact, from time to time, short lines in forest country are fully abandoned for this reason.

Complementary to the question of traffic is operating efficiency. Maximum load and minimum cost are watchwords of every operating official; and, indeed, must be, for herein is the test of his ability. Moreover, operating efficiency is the pivotal point on which swing earnings. In a careful analysis of this item in the annual report, the first consideration is its ratio to gross earnings. Important as this is, it cannot be regarded absolutely as the criterion of efficiency. Considerable variation exists in the reports of roads, due to difference in methods, and a less ratio in one does not necessarily indicate greater economy. Assuming, however, proper maintenance and improvement of the property throughout, the lesser ratio generally means greater net earnings.

Efficiency in operation of trains and handling of business, of course presupposes full co-operation of the entire management. In the present day, policies of management are fairly well fixed, especially of the larger roads, nevertheless, the investor is bound to inquire into these for the reputation of a management for conservatism or otherwise.

We have seen that the focus of all operations is net earnings (as derived from best practice); yet gross earnings require careful consideration. The proportion of net to gross from year to year is significant. Dwindling or small gross receipts, notwithstanding well proportioned net, might indicate that the business is unsatisfactory. Analyzing these figures, the income, net and gross per mile, is derived; and this may be compared with capitalization figures on the same basis.

Considerable importance attaches to this question. The proportion of stock to bonded debt should be within reason, and the capitalization, per mile, in general, and by bonds of the issue under consideration, together with prior liens, should bear a proper relation to the earning capacity per mile.

Any critical examination of the security back of a bond is certain to lay stress upon the item of fixed charges, which include usually, taxes, interest on funded and floating debt, and sinking funds. By reduction of these charges to the per mile basis comparisons may be readily made. Viewed in relation to net earnings, the most concise advice possible comes from a man of wide financial experience, who said: "Never invest in the bonds of an enterprise until it can show actual net earnings of not less than twice the amount required to pay interest on its bonds." Whether such is a dictum for every case is an open question. Certain it is, there should be sufficient margin to insure payment if temporary failure of income should come about.

In the experience of some corporations declining business, overburdening debt, or incompetent management are forerunners of reorganization, a time of crucial test of the security of each bond issue. Foreclosure, be it reiterated, is generally impracticable, hence in reorganization the bonds suffer in proportion to their relative position among all obligations.

If it is a railroad, where terminals, branch lines, and subsidiary companies are covered by their own mortgages, and over all are spread general mortgages, seniority of lien and the relative value of the component part to the future success of the whole will avail for much. So therefore, in anticipation of such a contingency as liquidation, the relative position of different issues

should be clearly established by an investor. How near to the road the security is and how much indebtedness precedes are vital points. First mortgage does not always mean first lien; a consolidation of several properties may be put under this general mortgage which would be the first lien on the railroad company, *in toto*, but not a first lien on its constituent properties.

Then there are first and consolidated mortgages, very often a real first lien on only a small portion but consolidated for the greater part and subject to prior liens. If, however, retirement of prior liens has progressed well, these general mortgages, under a readjustment of affairs, may fare well, since through the maturing of prior liens they often become a full-fledged first lien.

Generally speaking, two methods of determining the safety and security of a bond present themselves. One is internal examination, that is, careful scrutiny of figures, statistics and other corporation facts; the other, somewhat less exact, is a proper observation of outward manifestations of corporate vigor. More or less pronounced with the type of bond, they are indubitable earmarks of soundness or instability. Most significant, perhaps, is interest rate; with some slight exceptions, safety and security vary inversely with the rate of interest. The nearest approach to absolute safety is United States Government bonds; their interest rate, also, be it noted, is the minimum that could be offered on any security. Compensation for risk is generally in larger return, hence it is an almost universally established principle governing investments that beyond a proper average for each class of bonds, which might be considered as a standard, the risk increases with the rate of interest.

Or, if a different yet related index be taken, it could be the premium at which they stand; security and solvency determine this to a great extent. Competition for the best will soon lift their price, which, in the long run, is an earnest of safety. In a general decline of prices, the depreciation of different kinds of bonds is not uniform; the higher the class and the more secure they are, the less pronounced is the depreciation. Some lower forms of obligation are likely to fall comparatively much.

There are yet other indications to guide an investor. Good bonds have a good market which is generally a broad market. It cannot be laid down as an infallible rule, but such as enjoy a broad market reflect a favorable judgment in which the element of security is a great part.

Best of all is the finger post of the law governing our savings banks; tried and not found wanting, it points out investments by name, class, or qualification that may be accepted without question. In its solicitude for the welfare of these institutions, distinction runs to discrimination, and if it errs, it is far over on the safe side. Bonds that measure up to its requirements are good, *par excellence*, and the individual who accepts and follows its gratuitous advice will seldom have cause for regret.

CHAPTER XI.

GUARANTEE.

Back of hundreds of issues, of all sizes and descriptions, many of which are not to be found in the open market, while others are spread broadcast, is this liability of guarantee, a transaction arising out of the varied circumstances under which these bonds are issued or come. Sometimes the guarantee of an issue is a question of policy, at other times an urgent necessity.

Considerations of this character essentially determine the scope of the guarantee. No more than the responsibility for the payment of principal at maturity may be required, which is a burden of doubtful weight on the guarantor, especially if the term be long; or, what might prove to be a little onerous to the guarantor, would be to become answerable for the interest payments only. If exigencies of the moment, however, demand a stronger pledge, then both the principal and interest are safeguarded in this way.

In a majority of cases, it is the entire issue that is covered by the guarantee. The exceptions are partial guarantees where only a portion of the issue, often the larger, comes under its sheltering wing. Guarantees often grow out of reorganization proceedings, when bond-holders may be reluctant to approve arrangements whereby apparently more is lost than by exercise of their rights. In compensation, therefore, for assent to

some loss by reduction of interest for the future, this assurance is given on which they may build a reasonable hope that from that time on the bonds are at least safe.

As applied to principal, a guarantee, is, of course, only operative at the end of a long period. Not so with interest. Here it runs along with time and at any moment the guarantor may be called upon to pay this charge. But the life of a guarantee is not always that of the bonds themselves. Frequently an issue is protected only for a specific period which is shorter than the run of the bond. Because of serious doubts of investors of the ability of a property to earn its interest charges at the outset, the guarantor, of whatever identity, must give its word that these will be paid, notwithstanding. Such an arrangement is usually for five or ten years. A continuing obligation would often be unnecessary since in so generous a probationary period the property may full well demonstrate a capacity to care for itself.

Development of railways into great systems and the growth of other forms of corporate enterprise into vast consolidations means that vast quantities of securities of their constitutent parts must be cared for in some manner. Sometimes a whole issue is cancelled and a new one of the controlling company substituted. Many other ways have been devised for accomplishing this, among which is the method of assuming the obligations. A common error is to confuse the identity of such assumed bonds with those guaranteed. Though they may be considered as close relations, distinctive features sharply differentiate them.

An assumed bond, as the term clearly implies, is an obligation taken up by another corporation; it becomes

the direct liability of that corporation; it takes its place in chronological order among the liabilities; it becomes part and parcel, unequivocally, of that corporation's own indebtedness and is so shown in any full report of debt. The guaranteed bond, on the other hand, is but a contingent liability, second to all other obligations of the guarantor and taking no priority over its subsequent issues. A company may, therefore, give its guarantee for bonds of another, and later issue many of its own, all of which would rank superior.

Were these fundamental facts fully understood, another popular misconception would not exist. Strangely, but truly, there are those by whom certification of a bond is believed to be guarantee. No greater variance from the facts can be imagined. In no sense, is certification such a function. Considering the fact that this is usually done by the trustee of an issue, and is intended only as a safeguard against excessive issue, it becomes plainly evident that guarantee is quite without the province of a trust company in that capacity and the company does not, of course, intend to appear in any way as guaranteeing bonds which it has certified.

In the field of railroads, wherein is the most pronounced tendency toward consolidation and where, perhaps, the most rapid growth is manifested, are the greater number of guaranteed bonds. Hundreds of little independent lines are taken in, one by one, under lease or by purchase, and many branches are added by construction.

When a railroad extends its lines, running them into different states, it is always necessary that a charter be obtained from those states. Obviously, such branches, or separate companies as they may be incorporated,

are untried and prospects is the only basis for claim to recognition. With this only, were they to depend on their own credit to bring them funds for construction, their securities would command a low price or likely be unmarketable.

Now the large company, in whose interest these branches are built, with its strong credit and assured financial position, could undoubtedly construct them without resorting to security issues at all. But what is often done is to issue bonds, give a mortgage lien on the new work, as security, and place beneath it all a guarantee. Reinforced by the credit of the larger company, such bonds may be favored with a good market. Without it, a prospective purchaser would be in an unenviable position for what assurance has he that these companies or branches can earn even the interest on their bonds? The fact that a large proportion do not, lends emphasis to the necessity for this action.

The necessities of a large line may induce it to enter into guarantee of another's bonds. Such a case is found in the Atchison, Topeka & Santa Fé System where to secure a connection, the Atlantic & Pacific Railway, which is between two larger portions of its lines, it was necessary to guarantee that company's bonds. Because of unfortunate traffic conditions and arrangements, insolvency had resulted, endangering not alone the line itself, but its value to the other as a bridge.

Sometimes a company that has guaranteed another's bonds, is, itself, merged into a larger. Under these conditions, a sub-guarantee might be given which would be essentially assumption of the existing obligation by the leasing or controlling company. This would not release the original guarantor but would

operate to throw any burden eventually upon the last-named company.

A community of interest in certain privileges is often the foundation for guarantee; two, three, or more railroads may enter a station; several companies may cross a bridge, or they may enjoy equal use of a tunnel. There might then be given a joint guarantee of the bonds of each of these pieces of property and if the responsibility were to be more securely placed, the obligation would be made joint and several.

Though relatively few, government guarantees are given, more in foreign countries than elsewhere, and then, generally to strengthen the bonds of some railroad. In Canada are several instances; Manitoba Province guarantees principal and interest on one or two branches of the Canadian Pacific Railway, and the same company, some years ago, for relinquishing exclusive right to operate lines in Manitoba to the international boundary, received the Dominion Government guarantee of interest on a large issue of land bonds. Yet again, this same Province of Manitoba guarantees some subsidiary bonds of the Great Northern Railway. In South America there are instances of guarantee by government.

Pure guarantees by municipalities are few. In a measure, pledging of faith and credit of a city and county, as is occasionally done, for bonds of a county in which a large city is located, acts as such. Or, again, a city may guarantee some of its assessment bonds, which, as is well known, are payable by special assessment on the property benefited. But most rare of all, is the position of an eastern city which endorses the first mortgage bonds of a railroad to a certain amount. Exactly the reverse is occasionally done

where a municipality might issue bonds for say a bridge. The street railway enjoying its use would assume the bonds entirely.

Guarantee is a form of contract; involving as such a consideration; some reciprocal advantage to be derived from the agreement by each party. Its nature is, of course, as diverse as the circumstances from which it is an outgrowth. Aside from the legal necessity of consideration in a valid contract, there must be, in reason, a return for so valuable a service. Whether direct or indirect, depends much upon the nature of the agreement. A direct benefit would be seen in terms of a specific consideration; as, for instance, a road or company might guarantee another's bonds in return for a large block of its stock. In a newly formed corporation, this could well be done. Or in the case of a leased or controlled line definite privileges or earnings may be mentioned. Often the consideration is covered by so indefinite an expression as "one dollar and other good and valuable considerations." Particularly is this used where a newly constructed branch line is involved, and it is, of course, just as effective as though more were said and inclusive of all advantages from an interchange of traffic.

Perhaps the most interesting phase of guarantee is its effect on the bonds and its value as an element of security. Even though the bond is not primarily secured by a mortgage, *guarantee* may make an excellent investment of one otherwise doubtful, and give to it a standing of high respectability in market quotation.

Too much emphasis, however, is often put on the guarantee; the assumption is that in this fact alone lies almost absolute safety. This is a mistake. There

must be some inherent merit since repudiation of guarantee has sometimes occurred where a large road guaranteed the bonds of a smaller one. Hence it is necessary that the position and prospects of the smaller one be considered. Its business may dwindle or other conditions may arise in which the guarantor would lose heavily in caring for continued deficits, and with some self-justification refuse to continue payments. Recourse to law would secure to the holder some satisfaction, but in the end, be efficacious only to the extent that the company could not justify its action in the courts.

Two things, therefore, must be kept in view when considering guaranteed bonds from the standpoint of security; the measure of inherent worth—to be judged largely as of unguaranteed issues—and that the guarantee is only as good as the giver.

So let the investor look into the matter of consideration and understand what conditions exist; let him know that the value of the guarantee behind the bonds must be considered in the light of the integrity of the company giving it and that the guarantor's reputation for meeting its obligations is a vital point. Good faith and solvency, in the eyes of the financial world, are the basis of worth.

The manner in which guarantee is given and carried out is similar in all cases. Its authorization, as with many other corporate proceedings, emanates from the stockholding body, and a record kept shows all its provisions. The language may be very simple or yet so worded as to be abrogated if desired.

The following, made by a prominent industrial concern, is a good example:

Guarantee of the A. B. & C. Company

New York, January 1st, 1905.

For value received, The A. B. &. C. Company hereby guarantees the punctual payment of the principal and interest upon the within bond at the time and in the manner therein specified, without recourse, however, to any director, officer, agent, or stockholder of said A. B. & C. Company for any purpose or upon any ground.

In this case it is signed by the Vice-President and witnessed by the Secretary of the company.

Being a contract, it is made either with the bondholder direct, or, more often, with the trustee for him. If new bonds are involved, such as those for building a branch line, the guarantee is generally incorporated in the text. Old bonds are usually endorsed to the effect by stamping.

One noteworthy feature of some guarantees is best shown by citing the case of the Central Vermont Railway Company bonds, brought into the New York market a few months ago. They are guaranteed by the Grand Trunk Railway and for all sums advanced by that company under the guarantee, in case of default, it is entitled to receive an equal amount of interest coupons, which, in case of foreclosure, are entitled to payment but not until after the principal of the debt and all other unpaid coupons have been paid in full.

In this way interest is paid yet the coupons are not cancelled. If the position of these coupons is not clearly stated, as in this instance, the practical effect is to keep alive an interest lien which, at maturity, is legally entitled to rank with the bonds in a claim upon the property.

CHAPTER XII.

MATURITY.

Discussing the matter of security, the permanency of a bond was mentioned. Investors demand stability, not only in a financial sense, but in a physical way, so that length of life is a cardinal consideration with them, and the long term obligation recommends itself generally, above one of fewer years. The period of life is an essential factor in establishing the return to be received. *Return* on a security involves several factors—*interest* is one, *maturity* another, and these in combination with market conditions produce a further, *price*—all of which enter into the mathematical computation.

Their importance in this is exactly known but their mutual effects cannot be definitely measured. How great a force in the destinies of an issue they individually are, is uncertain. The fact remains that maturity is consequential apart from its mathematical aspect, and will, in no small measure, determine the premium or discount on a bond.

All bonds, save the few perpetual issues, some of railroads and those of states, generally issued for educational purposes and irredeemable, being held in special funds permanently, have, as a part of the contract, a date set, on which the principal will be repay-

able; this is nominal maturity and is usually on an interest date.

If the issue be one secured by a mortgage, at that time, on payment of principal and interest, the mortgage is satisfied of record by the trustee and the bonds are cancelled. After payment, and cancellation, the bonds may be burned in the presence of the trustee and a cremation certificate executed and acknowledged.

A slight variation in the average maturity for each class of corporation is noted, the class to account for it. Generally speaking railroad issues are longest, many of which are for fifty years; some shorter and others for even greater time. For distant maturity the most unique obligation of this character is the West Shore Railroad Company first mortgage, four per cent. issue, guaranteed by the New York Central and running until the year 2361. Industrial bonds are appreciably shorter, averaging not more than twenty years.

Actual expiration of an issue and payment of the debt it represents is comparatively rare. The Government and municipalities from time to time have issues that have run full time and are then paid, but railroads, who furnish the bulk of bonds, seldom have an issue provided for in that manner. It should be understood that many come to full maturity, so far as time is concerned, but through the process of refunding, in one form or another, the debt is continued, in new issues of securities perhaps identical in many particulars with the preceding issue. We are, however, here concerned only with an original bond, so to speak, with a nominal lifetime.

Though maximum maturity may be clearly stated, for obvious reasons, hundreds of issues, wholly or in part, are subject to much shorter existence; their real

termination, in fact, is contingent on various circumstances. Let a long issue run to full maturity and it shifts a burden on future generations.

But a corporation may feel strong confidence in its ability to pay off a portion of its debt before so many years; it may have in mind a possible rearrangement of its finances within a few years. Anticipating such or other conditions, it reserves to itself a right to reduce or liquidate the debt. Of some municipalities it is required by law that a certain amount of debt shall be annually retired. For such reasons bonds may actually mature as affecting the investor, long before the stipulated date.

This process of redemption is effected in many ways, its details varying with conditions. First of all, there is proper authorization, as with guarantee. Financial provision for taking up the redeemed bonds is made as best suits the interests of the corporation; money is drawn from specific sources or taken from general income and usually designated as a Sinking Fund.

Two general methods are in use to retire bonds by redemption. One is to take them up by lot, which is to draw from the numbers representing the entire issue as many as may be required. That this operation may never be questioned, it frequently is done in the presence of certain persons or a notary public. Necessarily a bond so treated, is very uncertain in life and therefore meets with objections from an investment standpoint. So seriously do these objections affect the bond that another operation, that of purchasing in the open market is frequently carried out. The permission for this may be provisions in a mortgage which may say that the bonds shall not be called but bought.

On the corporation side of this proceeding are objec-

tions to be considered. An artificially high price may be created by such purchase so that it would be poor policy to redeem them at all, because such attempt would be practically thwarting a corporation in efforts to retire its obligations. But that such advantage may not be taken by holders many bonds are often sought first by purchase and that failing, are drawn at a reasonable and stipulated price.

Expedients to neutralize the ill effect of redemption are tried; for instance, with payment of the bond, interest for a year is given or a percentage of the remaining interest may be added to the principal; say one half of one per cent. for each year of the unexpired term.

Some bonds are very short-lived; their stated maturity may be twenty or more years but the privilege of redemption may be operative immediately and at any time thereafter. Others are immune for at least a few years, and others for a certain time, with some possibility that they may run their full length. With some it is specifically stated that they shall not be called until after a certain number of years. Such names as five-twenty, ten-twenty, or any other combination frequently indicate that they will run to the first number of years at least, after which they may or may not be exempt for the remaining time according to the special agreement made. In short, all kinds of arrangements govern redemption; it may be yearly, semi-annually, or at pleasure; may be on an interest date or other; may be operative or void according to any number of conditions.

Reserving the privilege of redemption for any time, enables a corporation to take advantage of low market price; at maturity par would have to be paid; if, before

that time the price should fall below, it would be a saving operation to take up as many as possible.

Amounts that may be retired by redemption vary, being affected, of course, by corporate conditions or the disposition of the management. Occasionally the call privilege is exercised to redeem an entire issue; indeed, it may be so provided that no alternative exists if any bonds are to be withdrawn. General practice, however, permits either all or part, and this part may be further specified to be a definite amount or a certain percentage of the whole issue or of those outstanding. Arrangement is sometimes made whereby increasing amounts may be redeemed each year; another retires them so that the debt will be fully liquidated by maturity, and still another is to alternate in amounts each year.

For reasons already suggested, it is the part of wisdom to set a price at which the bonds may be retired, and that is the custom. This price is usually slightly higher than par but may be at the market. While redemption is usually accomplished at regular intervals, in many instances it is a contingent operation; funds may be at hand but instead of adopting either method already described, holders are invited to bid for surrender of their bonds at prices named by themselves, and in the event of unsatisfactory bids, the company may not redeem any.

All this is done through the medium of advertisement; public notice is given in this manner in which all points are covered. The length of this notice is not uniform; ninety or sixty days may be deemed necessary, while a month or less is considered sufficient and reasonable for some.

Continuation of debt by refund into new bonds is

generally accomplished with facility and is common, but actual extension of the maturity is not widely practiced. Moreover, many an issue is hedged about by restrictions that prevent such a proceeding. In any event, a prerequisite is consent of the bondholders, as it is impossible for stockholders to take arbitrary action in the matter. If this consent partakes of the nature of a concession to the obligor, bondholders agreeing to such extension may receive compensation. An instance of this is found in the bonds of the Atlanta & Charlotte Railway, a leased line of the Southern Railway, which fell due January 1, 1907, and which would have been refunded, but on account of the unsatisfactory state of the bond market were extended to January 1st, 1910, three quarters of one per cent. in cash being given as compensation.

A particularly long extension in further illustration of this method is that of Missouri Pacific former seven per cents., which fell due on November 1, 1906, but were prolonged for thirty-two years at four per cent. At the time of that extension a payment of five dollars in cash was made on each bond.

Apart from financial considerations, there is a measure of economy in such a course; extended securities require only new coupon sheets and perhaps the extension contract to be attached, and where the purpose is thus served, the labor and expense of new securities is saved.

A unique extension arrangement, making the bonds practically perpetual, is that of a large Canadian road with one of its subsidiary lines; there, the holders have agreed to refrain from demanding their principal during the continuation of the lease which is in perpetuity.

The principle of redemption is no different than that

underlying what is known as the serial method of maturing bonds where an issue is divided into series, each designated by progressive letter or number and coming to maturity in this manner. The processes are alike in essence but differ in that the former does not nominate the specific bonds that shall be retired but leaves it to the accident of chance which may fall upon any, while serially, the life of every bond is definitely known. In effect, such a serial issue is a number of small issues of different maturities, taking the nature of short and long term securities. Recognizing this fact, the market accepts them and judges accordingly. The quotation for an early series will often be wide of a later one.

As to the periods in which the series mature, they vary as greatly as in redemption. Municipalities generally put the last series of their issues at many years, twenty or more—but other corporations shorten theirs. Railroads, as a rule, pay off say, one twentieth, twenty-second or twenty-fourth every six months so as to retire the last not later than twelve years from date, and a few are made to mature in monthly instalments. These are well-nigh requirements, since the depreciation of their security, cars and equipment, is rapid and the value of these things is greatly reduced within a comparatively short time.

CHAPTER XIII.

MORTGAGE.

Reference has already been made to this instrument, which so frequently plays an important part in the consummation of a bond issue. Its comparison with the ordinary mortgage, covering a piece of real estate, shows them to be built upon the same principle but structurally different. Alike in that their function is to provide security for bonds, they must necessarily differ in other respects.

The parties of an ordinary mortgage are the obligor and obligee—debtor and creditor—but this is a practical impossibility with a large mortgage, the bonds representing which are held by thousands, and are being constantly negotiated through the exchanges or otherwise. The party of the second part is therefore a trustee, generally a trust company. Issued in this way the mortgage becomes an indenture, or deed of trust, an agreement between two, under seal, for the benefit of a third party.

An ordinary mortgage conveys title, conditionally, of course, to the obligee, whereas by this deed of trust, title to the underlying property is vested in the trustee for the good of all the bondholders.

As an example of completeness, this instrument, as now usually drawn, is unsurpassed; every conceivable

point affecting the company, bondholder, stockholder, and trustee is covered with minutiæ familiar only to the law. Its comprehensiveness embraces the interests of all and provides for every present circumstance and many possible contingencies.

Out of this arises its complexity. Not one of every one hundred bondholders of a large issue ever reads through the document on which he so largely relies for protection. Indeed, without a fair knowledge of the corporation's affairs and ability to interpret correctly a finely written construction, he would have difficulty in defining his position.

The necessities of the case generally demand such a document. Many things must be considered. The property, in its entirety, may be the result of linking and interlinking of others, each of which has a status, and furthermore, omissions might prove embarrassing should trouble arise at some future time.

Because complex, it is manifestly of considerable length. Naturally, this varies with conditions; the mortgage on a small subsidiary company of one hundred miles may not be only one one-hundredth of the length of one on the large system of ten thousand miles, but it may be comparatively brief. A large mortgage from cover to cover may be fifty thousand words and many contain half that number.

The modern railroad mortgage indenture is the acme of legal finesse in construction and phraseology and is the product of accumulated experience and resourceful legal minds. Its language is exact and strong, eliminating all possibilities of doubt, though often obscure to a layman. Prepared with great care, it is intended to be beyond criticism in accomplishing its purpose.

Notwithstanding all, this document has come to be

almost uniform in its general plan. Evolution has brought it to a point where a blank form, modelled after an accepted pattern, could well be used in cases.[1] While its general provisions in different instances are essentially alike, the exact provisions frequently and necessarily must differ. Obviously no two could be exactly alike; a power company mortgage, for instance, would differ greatly in detail from that of a railroad; those of a candy factory and electric light plant would hardly be interchangeable.

An analysis of the most approved form reveals the safety of the bondholder most conscientiously provided for, in so far as it lies within the power of the instrument; his rights are clearly and fully defined. Indeed, it behooves the corporation to recognize the urgency of this, for a mortgage loosely drawn can be a decided detriment to the bonds even if not entirely preventing marketing them.

Over against this is the position of the company; that too is sharply outlined—its rights, reservations, and obligations are in definite terms. A statement of the position of the company involves its owners, the stockholders. However vigorous therefore the language of the document, it cannot go beyond the limits of justice. Though the bondholder is a creditor with preference, and his claim supported by a lien, the mortgage is usually drawn to be fair and reasonable; taking cognizance of the equities of the stockholders.

Furthermore, the document is generally very explicit in everything that appertains to the trustee.

[1] The New York Trust Company, formerly the New York Security & Trust Company, has in print such a model, prepared for its clients and those who desire to prepare mortgages under which that company is to act as trustee.

Responsibility of trusteeship is the performance of duties, more or less, as the circumstances may require, and, while legal liabilities imposed upon the trustee may be light and specifically limited, a great weight of moral accountability rests therein. From this view-point, a trustee could not be held above reproach should deception or evasion in the terms of the mortgage be overlooked. In a large measure, the confidence of investors is in trust as well as their mortgage or property.

The general arrangement of the provisions of a corporate mortgage is about as follows:

DATE.

PARTIES: The corporation is here made the party of the first part with the trustee as of the second part.

PREAMBLE: In which are recitals of the legal status of the company and its incorporation, showing it is organized and existing under the laws of whatever State is proper; that it has a certain amount of capital stock and bonds and owns certain properties, lines of railway etc. etc. Also the purpose or purposes to which the proceeds of the bond issue are to be applied, which may be stated specifically or generally.

Corporate authority for the issuing of the bonds and execution of the mortgage is found in a copy of the resolution of the stockholders authorizing the directors to proceed, together with a copy of the directors' resolution in the matter. This resolution generally recites it has been decided to issue such an amount, at such a rate, maturing such a time etc.

FORM OF BOND: Full text of the bond is given; if in both registered and coupon form, both are given in full.

FORM OF INTEREST COUPON: Exact copy of this generally follows the form of bond.

Trustee Certificate: Form of this certificate of validity given in full.

Guarantee: If bond is guaranteed, form of guarantee by the third party, in full text, may be given in the mortgage.

Granting Clause: Transfers the property to the trustee to secure the payment of the bonds; generally an absolute transfer.

Property Mortgaged: Full description of property included under the mortgage is herein given. If it is to cover securities—stocks and bonds—an itemized list of these is generally given. In many cases other liens exist, in which case their status is set forth showing their priority, etc. In this provision is generally found the clause pertaining to after-acquired property, stating whether that shall come under the present mortgage.

Trusteeship: Stating that the property is granted only in trust and for the equal *pro rata* use, benefit, and security of all holders or owners of said bonds.

Certification: Provides for certification and proper issue of bonds and emphasizes necessity of the trustee's certificate of validity.

Overdue Coupons: Providing for cancellation and delivery to the mortgagor company of all coupons which are matured at the time of delivery of any bond.

Covenant to Pay Bonds: Mortgagor agrees that it will promptly pay interest and the principal of bonds hereby secured at the time and in the manner specified in said bonds and coupons.

Insurance, Taxes, Assessments, etc.: Compels the mortgagor to keep the property insured—pay the insurance charges, promptly pay and meet all taxes, rates, levies or assessments and charges so that the lien may remain unimpaired.

INTEGRITY OF LIEN: Binds the company to do all things necessary to preserve and keep valid the lien hereby created, making it also necessary to keep the mortgage a prior lien.

CONTROL: Recitation that the company shall retain a complete control and fully enjoy the profits, etc., of the property until default shall occur.

REGISTRATION: Provision is usually made for registration of principal of coupon bonds; sometimes for registration of interest.

OFFICE: Place of payment of coupons, generally in New York, is here provided; also for the service of any legal demands by the bondholders.

SUBSIDIARY COMPANIES: As many companies have numerous subsidiary companies, the status of each one of these and the position of their securities is definitely stated.

DEFAULT: States what shall constitute default; specifies how long a period shall have passed in default before any action may be taken; specifies what shall be the trustee's duties as to taking possession of the property and operating it for the benefit of the bondholders; designates what percentage of the bondholders must request action on the part of the trustee to enforce their rights. This percentage may be twenty-five, usually not more. Then follow duties of trustee in case of sale and percentage of bondholders necessary to compel this action. The question of sale, however, must be decided by a majority of bondholders.

FORECLOSURE: Duties of trustee in the event of foreclosure and sale follow, and percentage of bondholders necessary to compel this action is stated. Usually it must be a majority. All judicial proceedings are provided for and all receivership matters.

TRUSTEE, CHANGE OF: Provides for resignation of trustee at any time after having given due notice; also for removal of trustee upon written wish of a majority of bondholders; also for appointment of a successor.

TRUSTEE, RESPONSIBILITY AND LIABILITY OF: Sets forth terms and conditions upon which trustee accepts the trusts and assumes the duties imposed by the mortgage; gives a lien on the property as compensation for execution of the trusts.

OFFICERS AND DIRECTORS, LIABILITY OF: They are absolved from any personal liability by reason of the obligations of the indenture.

INTERPRETATION: This is to give construction on the terms used in the instrument so that the text may be open to no question on that point. It mentions a few words used throughout the mortgage and explains their meaning, indicating how others shall be interpreted.

COUNTERPARTS: To expedite recording of the indenture a number of originals are simultaneously executed, acknowledged, and delivered, and all considered as one and the same instrument.

The preparation of the mortgage is the work of counsel highly skilled in corporate law; and only the best talent in this line is employed. They must not only build the document but must declare its legality, as it must conform with all provisions of the company's charter relating thereto, and must not conflict with any laws of the State in which the company is incorporated, or of the United States.

After all this is completed, it is duly signed by the President of the company followed by the signature of the Trustee, thus acknowledging the trusts imposed. The corporate seals of both company and trustee are

affixed and attestation is made by the respective secretaries. However, before it is accepted, counsel of the trustee make a very careful study of its contents. Not always is it accepted in its original form. As a general rule, trust companies require certain essentials to be incorporated and it is frequently changed to meet their views, that they may feel fully secure in accepting the trusteeship and the responsibility of issuing the bonds.

The provision for more than one copy arises from the necessity of recording. Some companies must observe this formality in several States, which is greatly facilitated by this provision. In all cases it must be recorded with the Secretary of each State affected, and, if it be a railroad, with the proper official of every county traversed.

Consolidation, extension, lease, purchase, mortgaging and remortgaging have so multiplied the liens on large railroad systems, in part and entirety, that memory cannot well retain their number and relative position. To facilitate the banker's work in considering flotation of new issues and to assist investors in judgment, pictorial representations of all mortgages on most railway lines are published. When it is considered that the Pennsylvania Railroad, for instance, has outstanding upwards of two hundred and fifty issues of all kinds and conditions, the usefulness of such a publication is appreciated.

Like wills, many mortgages are subject to amendment and qualifications; changes in business conditions often require modifications to the original document and a supplementary indenture is therefore generally issued. An infinite variety of circumstances may give rise to this procedure; in fact, almost any varia-

tion of the terms is covered by supplementary indenture. If the security of bonds is at all affected, it is invariably done. Yet there is a distinction between supplementary *indentures* and plain supplementary *agreements*; their effect, to modify the original, is identical, but the latter are less formal documents. In construction both may be brief or full, as the case warrants. Their relative importance is indicated by the manner of execution. Supplementary indentures, as with originals, require proper authorization by the stockholders and, further, by the bondholders. The value of such a requirement is more than self-evident; but for it, the security of their position might be greatly altered.

Supplementary agreements are comparatively informal; only minor points are generally affected, hence the approval of the bondholders is not sought. If their trustee deems it not inimical to their interests, that is sufficient and fully effective.

While not all supplementary indentures radically change the terms of the originals, those resulting from reorganization generally do. But with assumed bonds the essential elements may remain unchanged, the fact of a new obligor, alone, necessitating the later document. Or again, new or more property may be included in the lien, simultaneous with the issue of more bonds which, in effect, enlarges the scope rather than alters the mortgage.

The laws of mortgages fail of their literal fulfilment when documents covering bonds on a large railroad, running through several States, are considered. Some uniformity is found in the statutes of the several States, but not sufficient to comprehend these broad indentures. Strict application of the laws of one State,

in default more especially, would destroy equities and might disrupt the entire organization. Consequently most railroad mortgages occupy a unique position. In a sense, the precise terms of law are superseded by considerations of equity, and should it be invoked for the protection of bondholders, the matter would be adjudicated on that basis.

Financially considered, mortgages are commonly classified. Advertisements enumerating particulars of an issue sometimes state that the mortgage is closed, a fact that carries more or less weight with investors. Strictly speaking, such a mortgage covers a stated amount of bonds, all issued at once, and its provisions are most rigid to prevent any increase. Thus is a corporation restrained from incurring further indebtedness and using the same mortgage as the protection.

But the term is often applied to what is in reality a limited open-end mortgage, a type embodying some of the features of both closed and open end. Its quasi character embodies the desirable principle of restriction and at the same time gives latitude to the issuing company, so that legitimate debt may be incurred and growth and progress not fettered. Any inelasticity in the provisions of a mortgage is felt when additional funds are needed and if the amount of bond issue cannot be increased, the result is the creation of new mortgages with inferior liens. Indeed, the multiplicity of bond issues may be attributed in no small measure to this fact. Partly then to avoid accumulating junior liens, and partly to provide for future needs, many ways have been found through these quasi open and closed mortgages. That this is a wise course is beyond question. A primary consideration in an analysis of a new security is its priority. Let there be a multiplica-

tion of liens, however small and secure, the circumstance creates a sentimental prejudice against later ones. Obviously it would be impolitic to create a new mortgage each time funds were needed, when the amount is comparatively small. Hence, the method is to provide for a large amount with one mortgage, not only to care for the company's needs at the time of its creation but for those of the future as well. In this way the corporation can secure funds for certain purposes without creating junior mortgages.

But because so much money is not needed at once, some provision must be made to prevent extravagance and to safeguard the interests of the bondholders. Left to themselves, with full power to command a great sum, managers might not resist temptation to its misuse, and so restrictive conditions are thrown about them. It should be noted that in total amount the mortgage is indeed closed, but in the method of its distribution over a considerable number of years, the last of which may be far in the future, lies its open-end feature. From all practical considerations, the initial investor deals with an open-end instrument. The limitations imposed, that prevent too rapid issue, are moulded by circumstances. Commonly they stipulate certain amounts periodically, and may further designate the use of the funds. Yet such arrangements are found as requirement of permission from the syndicate which bought the first amount; unanimous consent of the stockholders; and prohibition of issuance in excess of a certain amount until full interest is paid for some preceding period on all bonds outstanding.

If proper precautions are observed, there is no valid reason why bonds under this type of mortgage should be considered less desirable than others. Neverthe-

less, a few investors are pronounced in their partiality for the absolutely closed type through a lurking fear of laxity under any other. The merit of the closed mortgage situation is in that the exact amount outstanding may be easily kept in mind, and this amount does not grow with time. But to regard it as an instrument circumscribing debt-creating ability is to be self-deceived. Experience has demonstrated with what comparative ease new liens (more especially the general railroad type) may be placed and the bonded debt increased.

There is yet the open-end mortgage to be considered. Such a type, under which the amount of bonds issued could be increased without restriction, *per se*, would, of course, be useless—an impossibility—and is therefore unknown. What is implied by the term is unrestricted issue in total amount only, somewhat an anticipation, in effect, of development and growth by accretion. But to forestall the evil of unwarranted issue, the property to be acquired with all bonds put out must be in evidence. Railroads, as a rule, are alone in issue of such mortgages. As they build additional trackage, bonds to the extent of a certain amount per mile may be issued, from which it is seen that the limit of total amount would be reached only when construction ceased. The force of influence exerted by each of these three types of mortgage is a question. On the whole market the effect of any is very indirect and unappreciable generally. On its own issue, it is felt though not severely. For the opposite reason that a few investors lean toward the closed mortgage, others are prejudiced against the unlimited issue of the open-end because it is only with difficulty that they may know the amount in the market. Vigorous building operations by a

railroad would necessitate large amounts of bonds and these, poured into the market, would naturally tend to depress the price. Held in such disfavor, but few are made, the prevailing type being what has been called limited open-end.

CHAPTER XIV.

LEASE.

This is pre-eminently a characteristic of American railroad extension. Before the era of large capital combinations many small lines were constructed; local capital promoted comparatively short lines in profitable territory which were operated more or less successfully for years. But the destinies of these scattered pieces of railroad were greater far. Though often connected, it was obvious that under separate organizations of management, their sphere of usefulness was limited, and if local business was unsuccessful they might easily prove to be failures. The large cities very often could only be reached through a chain of connections, each a distinctive corporate organization, and administered under methods and policies not always in harmony. Under such conditions, efficiency and economy of operation as witnessed to-day were manifestly impossible.

The logical outcome was combination and consolidation. A separate identity was preserved in many cases, but commercially there was unity. In such movements the largest and strongest company generally became the initiator, and thus the foundation on which to build a gigantic structure, the great railway system of to-day.

Mention has already been made of the practical

community of interest of sixty-five per cent. of the railways of this country and their control of the remainder. Differently expressed, less than ten systems of railways in the United States control this large percentage of the whole. One or two concrete illustrations suffice to show from what a little acorn this great oak has grown. The Vanderbilt system, embracing 12,500 miles, is the result of a union of seven small roads between Albany and Buffalo; and the somewhat smaller Atchison has grown from an original line of less than one hundred to 9,200 miles of track. Yet building of great systems was not the last step in consolidation. Further than uniting groups of small roads as large systems, these systems have for years worked under traffic agreements, varied in character, but wholly beneficial to all concerned. In the commonly accepted sense this is not true consolidation, but so far as shippers and the travelling public are affected, it is the same. The internal relations established by this method vary but slightly from those growing out of traffic associations. While a traffic agreement may involve only two systems, an association is the combination of several. Highly representative of the latter type is the Trunk Line Association, comprised of all great lines running into New York City.

Actual consolidation, however, is largely accomplished through two methods—ownership and lease. In recent years these have come to be the most common forms of control. How the parent company shall exercise this control over its subsidiary company is a question decided in each case by circumstances. Absolute ownership is not often necessary; moreover, the expense of buying all its stock would be great. So

where this form of control is desirable only a majority of the capital stock generally passes, or such proportion as is requisite to accomplish the purpose, that of dictating the policy of the line. An advantage to be derived from this method lies in the benefits of a possible greater prosperity when the benefit of an increase of earnings would be reaped by the parent company. The disadvantage is its indirectness; since every move in policy must have formal sanction by the directorate of the smaller line ere it becomes operative.

But if the same end may be attained with a minimum expenditure of funds, at the moment, and avoidance of such formality of action, the method of leasing is certain to be adopted. Under the lease, plans for all parts of an entire system may be executed with great facility and policies carried out with expedition impossible under other conditions. From this view-point, the crowning feature of this method is its directness.

Acquisition of mileage results from different causes. It would be erroneous to assume that natural growth alone has been responsible. Time and again competition has forced it. Not infrequently systems under virtual compulsion to take over rival lines have merged them by lease. Or again, aspirations have led a company to seek a desirable terminal, the possession of which could be attained only through control of its owner.

What, then, is the nature of this transaction of lease which plays so important a part in the economics of transportation? A fact to be noted is that the agreement represented by a document of this name differs essentially from a mortgage. It is between two corporate bodies, ratified by the stockholders—owners—of

each; the bondholders—creditors—being without voice in the matter.

In the legal aspect, it approaches a type of conditional deed, drawn and signed by the subsidiary company, transferring its line to the parent company for a number of years. The intent, however, is not transfer of title but merely to give permission to its use. For the benefits to be derived, generally, there must be some form of compensation. Though they be not always calculable in pecuniary terms, the strategic advantage of a leased property is sometimes worth many times its cost or rental. Payment for lease is considered as rental and forms a very substantial item in the annual reports of most great systems. Variations in terms governing the time and amounts of payments are no less limited than the actual number of leases that may be made. All sorts are drawn, every one adapted to the special conditions of tenure. Possibly best known is that wherein the lessee agrees to provide for interest on bonds of the other company. Whether or not these obligations are fully assumed, such rental payment is equivalent to guarantee of interest, hence the bonds of a leased line falling under such provisions are always known in the market as guaranteed.

If the lessee does not elect to become owner by purchase of all outstanding stock, and the earnings of the property show return on the stock, of course, continuance of these dividends would be a part of any agreement the stockholders might make. Out of this proceeding have grown many issues of guaranteed stocks. Therefore, rental is frequently joint payment of an amount of dividend on the stock of one kind or another or both, and also payment of interest on bonds outstanding. No better random illustration

could be cited than the Delaware & Hudson subsidiary line, Albany & Susquehanna Railroad, where the rental is a round sum of $490,000 per annum, part of which, by the terms of the lease, is applied to retire $1,000,000 bonds of a special issue, part to pay interest on the outstanding bonds, and part to pay nine per cent. dividends on the stock.

If dividends on stock are not specifically provided for, a percentage more than the interest on outstanding bonds is often stipulated; for instance, twenty or thirty per cent. Still other arrangements call for a progressive rental that in many cases is regulated by the earnings of the leased line—it is then made proportionate to either gross or net earnings. In some leases where a fixed annual rental is prescribed, regardless of earnings, provision is inserted permitting readjustment of the amount after every period of a certain number of years. The equity of such an arrangement is evident—in a few years a line may lose much of its value to the lessee, who then, after a short time, has an opportunity to adjust his obligation to his benefits. As is well said, in one place the lessee guarantees nothing or little, now much or everything; in some instances he undertakes to make up a deficiency under a minimum sum and in others he gobbles all the earnings above a certain maximum.

The great variety of leases naturally involves periods of tenancy of different lengths. Some are so loosely drawn that they may be dissolved practically at will. Opposite to this is the term of nine hundred and ninety-nine years, known as lease in perpetuity. Involuntary dissolution of lease sometimes confronts a line; the Boston & Albany Railroad, for example, is leased to the New York Central with permission of

State authority, but upon one fundamental condition—that it shall perform as good service in its new relations as aforetime. Alleging that this part of the agreement had been broken, the State of Massachusetts threatened at one time to annul the lease.

Diversity of motives in controlling properties accounts largely for the length of leases. Where the purpose is to develop a great system, long agreements are drawn and we have the lease for two, three, five hundred or practically a thousand years; or in another form, coterminous with the lessor's corporate existence. On the other hand, a momentary advantage may be all that is sought, which could be gained within a period of ten or fifteen years.

Termination of a short-term lease often gives the lessee the same opportunity for adjustment which is specially provided for in some of a longer period. New values are then put upon the subsidiary line, reflecting its usefulness and earning ability, so that if extension of the lease is made, a new working basis is established. Such readjustment and revaluation occurs in every reorganization. This is a time when all agreements of this kind are annulled, and the lessee is relieved from the letter of the contract. Through these proceedings it becomes free to discard a line or modify its agreement to its own satisfaction. With much valuable experience to guide, continuation of an old lease or creation of new ones will be done under terms quite unlikely to prove onerous or a loss.

Railroad history has many instances of default of lease. One large system in the eastern half of the country is notoriously known for its repeated failures to live up to such obligations; it has frequently transgressed in this fashion when its ends were served; yet

because of its strength and position nearly always might made right, and the aggrieved parties generally obtained but meagre satisfaction. To protect themselves in the event of bad faith, stockholders sometimes require guarantee that the lease will be performed in every provision, and if it is not they will receive compensation for damage. Various plans to this effect are in operation. Under one, securities to a specific amount are deposited in trust. Upon default they are forfeited, if not entirely, at least to the amount which, upon adjudication, shall represent the loss. Other plans, though differing in detail, embody the same principle. For obvious reasons arrangements of this nature are not popular with lessees; the loss that would be sustained through forfeiture of a large block of valuable securities, supplementing the loss through a possible bad lease, is not relished by any corporation. Moreover the corporation whose property is not already mortgaged in some degree, and therefore not available for such a purpose, is rare.

The execution of a lease, fundamentally, must be in strict accordance with the laws of the home State, that is, the State of incorporation of the lessee, and it must be drawn so as not to exceed the corporate powers of the company; for to go beyond these or enter into a transaction contrary to law is ground for annulment.

From the standpoint of its market effect on bonds, little may be added to what has already been said in reference to guarantee. Generally speaking, the lessor's bonds have a prestige when behind them stands a strong system or company; a prestige that usually carries them along at a good quotation, a little better, perhaps, than is justified by intrinsic worth.

CHAPTER XV.

TAXATION.

Bonds, stocks, and all similar securities, whether held in the treasury of a corporation, as among its assets, or stowed away in the strong box of a small investor, are a form of personal property and under this classification are subject to the general laws governing taxation. The purposes of taxation, in its various phases, need no elaboration, for they are known. The Government, the State, and all minor civil divisions must have revenue to maintain public works and exercise their functions for advancement of the common good.

Through the method of levying on bonds as personal property it is possible to collect a tax on them with facility. Obviously the broad distribution of many issues precludes a general application of any other plan such, for instance, as a specific tax on specific issues. They become scattered throughout a wide territory, embracing many States each of which has laws varying more or less from its neighbors, so that the only practical way is collection of the tax where the bonds are held. Thus, while the rate is always low, only a few mills generally, it is always different according to the locality.

Nor are the bonds of an investor differentiated from

his other personal property. At the time of taxation, such holdings of any description are the subject of valuation in gross amount. He may have $50,000 in bonds and $600,000 value in other things classified as personal. Assuming honesty, the sum of these would be declared, on which, with proper reductions, the tax would be based. Though no items are specially set forth, segregating as it were the holdings of an individual, the position of corporations, under the necessity of full reporting of security assets, is different. Insurance companies, savings banks, and all other institutions of whom it is required, show in detail every bond they own, thereby rendering appraisal of their value, for purposes of taxation, of easy accomplishment by the authorities when necessary.

Here enter the matters of premium and discount. It might be supposed that par value is the basis of valuation and taxation, but such is not the case. Market value, or, if no quotation exists, its approximation, is the determining figure.

Since bonds are classified in common with personal property, proceeds from their taxation are part of the common fund and treated accordingly. How collection is made may not be too well understood to bear repetition. As general practice, where a county is large, scattered throughout with smaller towns and villages, each of these has its local collector, who receives full taxes and after retaining the proper local proportion turns the balance over to the county treasurer, who in turn withholds county revenues, and the remainder is finally passed to the State authorities. Where a whole county is within the lines of a city, one central place of payment is usual, from which all similar apportionment is made.

Of the billions of dollars of bonds in the market, many millions are relieved from the burden of taxation, light though it be. Exemption from taxation, first of all, is accomplished in a variety of ways, and for several reasons, and may be accorded either by general statute or through special legislation. Sometimes bonds are not exempt by general statute, so when it is desired to extend immunity to a certain issue, a special act of the legislature is invoked.

Government issues, that is United States bonds, carry exemption always and everywhere, but, of course, only within the Federal jurisdiction. The enjoyment of this privilege is not alone for all strictly regular Government issues but Congress has extended it to others of its creation, as the several issues for the Philippines, within the past several years, and the Hawaiian territory issue of 1906, due 1921, giving them the status of United States Government bonds, in this respect, though technically they are otherwise. No more complete statement of immunity could be made than for bonds issued under authority of Congress, when on the instrument is written that they are exempt from all taxes or duties of the United States and from any form of taxation under or by any State, local or municipal authority. Once beyond the borders of the country, however, they may be subjected to existing taxation laws of any country.

Exemption of State obligations takes on a rather different aspect. Generally speaking, each State extends to its own issues this peculiar benefit; but, as with the Federal Government, authority so to do ceases at its borders. So while exemption of our Government bonds is broad and practically absolute—for comparatively few are held outside the country—the status of

State issues is partial exemption, inasmuch as they often drift over the line and become taxable.

Except through liberality of the native State, in some instances exempting them throughout its whole territory, or of a neighboring State likewise disposed, municipal bonds have a still narrower sphere in which to enjoy it. With few exceptions, securities of the most important cities of a State are tax free to some extent within their own limits for all purposes, or for all but State purposes. New York City, for example, though with issues of either kind, has nearly all entirely free.

Counties and the smaller divisions generally are less favored, since their obligations, on the whole, are comparatively little exempt. Yet some county bonds, along with city bonds, are fully exempt within their home State. Notably in Pennsylvania is this true, where the municipality if it puts out its issues with this stipulation, itself pays a tax of four mills. The city of Baltimore carries on a similar practice; it pays the State tax on its bonds and exempts them from city taxation. Moreover, a corporation owning Baltimore city stock is exempt to the extent of its holdings from city and State taxation. Consequently these securities are much sought after by Maryland corporations.

Paying the tax in place of the investor is a method pursued by some private corporations where permitted. It is, of course, stated in the bonds of most companies that "both the principal and interest of this bond are payable without deduction for any tax or taxes of the United States or any State or Municipality thereof which the company may be required to pay, or to retain therefrom, under any present or future law," a stipulation which must not be confused as relating to the taxation under discussion. The import of that section of the

contract is that no matter what taxation of company property may be imposed, nothing will be taken from the interest payments or withheld at maturity. The bond, nevertheless, would remain subject to taxation in hands of the investor were it not for the arrangement between State and corporation, whereby the latter assumes the tax to relieve the investor, much in the manner pursued by Pennsylvania counties and cities. Actually such securities are not tax free in distinction from the bonds of some railroads which are fully exempt, since a tax is paid, though not by the investor. A number of individual States in the northwestern and middle Atlantic groups exempt a few comparatively small issues, and all on subsidiary companies of large systems.

Bonds throughout the whole country escape a second form of taxation such as is now imposed by New York State on stock certificates in addition to its levy on them as personal property. Every stock certificate transfer involves a payment of two cents on par value of $100 per share. During the Spanish war, however, in 1898, bonds were under a tax of this nature when the Government required five cents per face value of $100, but immediately the necessity ceased, it was withdrawn.

The effect of levying a tax is exactly the cause for exemption from it; reflex action of taxation is in the market. So low a yield as is common with most municipal issues, reduced still further by a tax, would make their possession prohibitory with income chiefly considered. Even so, the marked effect of exemption is in their distribution more than price. A slightly advanced price may be attributed to exemption, but the clearly discernible tendency is to remain within

the boundaries where exempt; in other words, their localization is accomplished, and indirectly, it is fair to assume, lending to the civic and economic betterment of the community. At the time of year when returns are made as a basis for taxation, there is always the greatest demand for non-taxable securities—at least this is true of New York—and for this reason a slight stimulus is given to their price.

As to foreign securities in this country; they fall within the common category of personal property and are no more heavily burdened than our own. But in European countries, outside securities are more or less subject to discriminative taxation. In France, particularly, strict regulations regarding admission of such securities are in force. So great an obstacle to American bonds do they raise, as to be practically prohibitive. Deduct from income on a bond stamp tax of 6 cents per $100; transfer tax of $\frac{1}{8}$% on coupon and $\frac{1}{4}$% on registered issues, with income tax of 4% on the interest, and the difficulties may be appreciated. The French holder of the bonds, however, if taxes are not paid, may settle with the Government by paying 2% on the principal. In placing foreign securities in France, the law permits two methods of payment; they may be placed subject to an annual tax, or the whole tax for the life of the securities may be paid in a lump sum. In the case of the $50,000,000 Pennsylvania loan of 1906, the Paris bankers chose the latter method of meeting the taxes.

CHAPTER XVI.

REFUNDING.

Records of the New York Stock Exchange show that of the bonds listed on that Board, a large percentage are not new securities in the strictest sense, but continuation of debt covered by one or more previous issues. This is fairly indicative of the extent of this practice of refunding. It is not done solely by one or two classes of corporations, but rather is universally applied to the necessities and policies of many.

As commonly understood, refunding is a financial operation by which any corporation changes the terms of an interest-bearing debt. In public finance, the term is synonymous with conversion. Moreover, it is interpreted essentially to mean continuation of a bonded debt; that is, the replacement of one or more issues by another, without many of the proceedings incident to one entirely new. But it is better yet to say that refunding is continuation of a debt in any form, so long as that debt remains within the category of funded obligations. Even this, though correct, is too narrow for the purpose of the moment. A broad application of the principle permits mention of several other phases of finance wherein the debt of a corporation is carried forward, sometimes in like form, and again in a different form.

Strictly and financially considered, the extension of notes by new ones is not refunding, though the practical effect is the same. The makers of collateral notes, like issuers of many bonds, rarely make provision for the payment of the notes at maturity, but expect to renew them at the then prevailing rate of interest.

Not only are notes turned into other notes in this manner but frequently they are changed into bonds, thus making a transition from floating indebtedness to funded obligation. For example, both the Missouri Pacific and Chesapeake & Ohio roads in 1905 put out bonds for this very purpose; the former issued a large amount which was not used at all for refunding, the greater part of the issue going to fund the road's accumulated floating debt. The latter used an entire $4,000,000 in the redemption of its notes. The opposite of this transaction is seen in the issue of notes to take up maturing bonds. It sometimes happens that an issue matures at a time when it is inadvisable to refund into another issue in the face of an adverse market or monetary conditions. In this emergency notes might be issued to tide over the period, after which it might be advantageous to issue a long term debt.

But since these operations are comparatively insignificant, they serve best to amplify the fact that corporations adopt various methods to reach their end, that is, the continuation of their debts of one kind or another. Notes for notes and notes for bonds are hardly more than temporary expedients. Bonds for notes savors of permanency, but bonds for bonds preponderates and is the most frequently occurring operation of renewal. With governments refunding approaches a settled policy. Where there is an expressed maturity, the debt is turned over and over by

this method rather than make payment. Particularly is this true of the United States. We make our debt practically perpetual by constant refunding; many foreign governments expressly state theirs to be so, hence there is no other physical evidence of the debt than a mere record such as on the books of the Bank of England for British Consols.

As for the necessity for refunding in our own country, tremendous prosperity and high financial position indicates full ability to pay off its debt. No doubt it could be easily retired, but it has been the consistent policy of the Government to extend each issue of bonds, if not entirely, in part, as it matures, and refund it into a new issue at a lower interest rate. From present conditions it may be deduced that two very potent influences lend toward perpetuating this indebtedness. The fact that the Government bonds are security for National Bank notes which are profitable to the issuing banks in a greater or less degree, is no doubt influential in this direction. Again their use as security for public deposits strengthens this influence. Required by the law, there is thus created a demand for the bonds; and while this necessity remains, there will of course be the supply.

But with those governments who give their creditors no physical evidence of debt, the operation considered as refunding, is little else than a book change modifying old conditions. Within the past three years several large governments have carried on extensive refunding plans. In 1905, the Secretary of our Treasury turned into 2 per cents. more than $50,000,000 of 3 and 4 per cents. under a special law of 1899 containing refunding provisions, which law was an act of Congress providing that all the bonds of the United States bearing 3,

4, and 5 per cent. per annum and maturing in 1904, 1907, and 1908 might be refunded into bonds not maturing until 1930, and drawing interest at the rate of only 2 per cent. The Secretary was authorized to exchange the outstanding bonds for the new ones upon terms that invited the transaction on the part of the bondholders. About the same procedure is carried out in all Treasury refunding operations. A circular is issued by the Secretary naming the bonds to be taken up, also the ones to replace them, the basis of the arrangement and necessary directions for the physical operation. The law of authorization is made a part of this circular. About a month before the operation is concluded another short circular is sent out, notifying all holders of fundable bonds that the privilege will be suspended after a certain date.

In October of 1906, the Argentine Republic furnished a striking example of refund, changing its entire internal debt bearing six per cent. to one of five per cent. with entire success, and thereby reducing the annual outlay in respect to the internal debt by several millions, practically one per cent. on about $65,000,000. The bonus, however, that the Government was obliged to pay holders was great enough to prevent an actual saving for the first three years of the new bonds. Another notable financial event of a few months past was when Italy likewise adopted this course; when the tremendous total of nearly two billions of dollars of four and five per cent. rentes were reduced to three and three quarters per cent. to be followed later by three and one half per cent. Out of this huge sum less than a million failed to be refunded through the owners' refusals. Loaded down with a great debt, retrenchment was a pressing necessity, and as appears from the

figures no small amount of interest requirement was saved by this operation.

Still another government that recently carried out what was practically a refunding plan is Japan. In March, 1905, it issued $50,000,000 six per cent. bonds; and in November of the same year a flotation of $250,000,000 four per cents. was made in Paris, Berlin, New York, and London, the funds being used partly for the redemption of the six per cents. and partly for redemption of some internal loans. With such instances yet fresh, which might be multiplied, it is apparent that public debt of governments is in a constant flux.

The field outside of public finance is, of course, replete with evidence of the tendency to refund corporate debt. As in many other ways, the railroads are preeminent in perpetuating their obligations. Indeed, many corporations when making an issue have no intention of paying the debt at maturity, but fully expect to refund. The securities of such lines as the New York Central, Lake Shore, Michigan Central, Pennsylvania Railroad, and others have been largely refunded from time to time. So pronounced was this practice in past years that between 1894 and 1904 the railroads refunded many millions of dollars of bonds; so many in fact, that that period has been called the "Refunding Era" exerting a great influence on these enterprises in general, much as did the Consolidation Era following 1880.

Various reasons present themselves why corporations adopt this policy; in some cases it is apparently necessity, while in others a matter of election. For instance, should a government provide for entire payment of its debt, increased taxation would inevitably follow,

unless some needful work were left undone or expenditures curtailed. A debt like that of the United States is not burdensome, hence presents no necessity for its payment. To keep the debt alive, therefore, is to do as private corporations do, who otherwise would be under the necessity of collecting revenues largely in excess of the usual, in anticipation of maturing of a large bonded debt some years hence. By them a structure has been built on a capitalization, which in many cases must be constantly enlarged to meet business conditions.

Assuming therefore, no more than a fair return on capital, it is obvious that pressure must fall somewhere if a large funded debt is to be liquidated. Of course, an entirely new bond issue might be applied toward this end, but that would not be practicable every time, hence corporations build on the assumption of continuing the debt indefinitely, and this to be done through the process of refund.

But undisturbed continuity of use of funds and setting ahead maturity of a municipal or government debt, though practically perpetuating it, charges future generations with a care. Through some untoward circumstance they may be forced to meet the obligations at maturity. Potentially, a burden as this is, there is altogether some justice in refunding a large debt. With private enterprise, some companies are in a period of adolescence just as heavy bond issues mature. With their funds the business has been developed to a point of stability and earning power, so to have taken gradually from current revenues sufficient amounts to liquidate the debt would have been weakening. At the moment a strong financial policy is under momentum and the full fruits are yet

to be reaped. Leaving out of consideration the possibility of derangement of a smoothly working financial scheme, it is manifestly fair that the beneficiaries, a generation or two beyond, should succeed to the debt as well as the larger enjoyments growing out of it. As well does this argument hold in municipal affairs; property that has appreciated greatly through vast improvements should rightly shoulder the burden of taxation to meet the bonds.

Some incidental effects of refunding are noticeable. Almost invariably in railroad finance, a refunding mortgage is general in type and in amount greater than the sum of those it displaces. It is customary to make the total large because of several functions it performs. Usually the iron bound limitations of previous mortgages are outgrown; necessities of development demand acquisition of fresh capital. A new mortgage, say, second, could be issued, exactly filling the need, but this is not generally expedient since it makes the debt more heterogeneous and is only comparatively temporary relief. The refunding mortgage is comprehensive; it does more than provide new capital. Through its chief function, which is the retirement of previous issues, it tends to unify the debt. Occasionally no old bonds are refunded at the moment, yet reservation is made for their maturity. The process is then simply to make it cover a large issue, sell part for new funds and retire other issues as they come due. Occasionally refund of an old issue is prohibited, when, of course, cash from reserved bonds is used to settle the obligation. Sometimes investors refuse to part with their holdings till the end, when the same operation must be carried out. This brings out the fact that refunding, generally speaking, is not obligatory on the holder; he

may get new bonds or money, or, if his bonds are not due, may retain them until expiration. This latter, however, is obviously an alternative only when refund of an issue with yet some years to run is attempted. Few investors take this position. Practically all release their holdings for new obligations inasmuch as such favorable terms are generally made as to be readily acceptable. They vary with conditions; bonus may be given or the new bonds may command so good a market as to compensate, through premium, for loss of interest on old ones.

When the railroads of this country were young, they were compelled to pay high interest rates on their bonds. Within the past few years many have grown financially strong so that later obligations are on a much lower basis. Many have rearranged their financial setting, which has included retirement of these old bonds through refunding. Such replacement usually results in saving of interest. Take the case of the $500,000 Atlanta & Charlotte Air Line bonds which were extended several months and which bore seven per cent.; the contemplated scheme showed a saving of $127,500 effected by refunding into four per cent. issues. Or again, in 1900, the New York Central, by refunding an issue of Harlem Railroad bonds, saved $420,000 a year. Similarly, municipalities in the West, within the past four years have refunded and readjusted their interest rates so that a vast amount of indebtedness formerly on a six and seven per cent. basis will not be drawing more than four and one half and lower from now on, and a great annual saving is effected.

Generally speaking, where it is an underlying lien of old bonds, issued at high rates, there is a saving in refunding, but many of the new and modern bonds and

large issues of general character cannot be refunded and save anything. The high rates of former days are past and many issues are merely refunded into the same rate. Even of the old bonds, it should be remembered that if they are refunded in advance of maturity, the amount of saving will be necessarily somewhat reduced since some allowance has to be made to the bondholder to cover the existing premium.

CHAPTER XVII.

EXCHANGE.

In Wall Street parlance little distinction is made between various operations involving what is considered an exchange of securities. The terms *exchange*, *conversion*, and *refund* are used in the most interchangeable manner and from this practice might be regarded as synonymous, though they are not. It is true that refund involves an actual exchange of instruments, but that is merely incidental to such an operation; it is one effect and not a cause. Likewise refunding means that a conversion is necessary, but still that is not properly expressive of the operation. Furthermore, a loose usage of the term conversion leads to ambiguity; to say that a bond is convertible might mean one of several things. It might indicate convertibility into its own form or another form of instrument; it might be intended to convey the fact that the security may be easily turned into cash—readily marketable—or yet again may be expressing the privilege of interchangeability accorded to holders of some bonds; that is to say, the privilege of obtaining the coupon form in place of the registered form and vice versa, at pleasure. Some private corporations and a few municipalities permit this last mentioned operation. Upon surrender of either form, the other may be obtained and the process re-

peated to secure the original form. Should the first holding have been in coupon form, frequently, upon the resurrender, the same numbers as those originally extinguished are given. The Federal Government, however, does not follow the practice of free interchange; it does give the registered form for coupon bonds, but the inconvenience of returning a bond with the proper coupons detached has deterred it from the other operation.

Refund, again, be it noted, when strictly applied, relates to but one category of instruments—those representing funded debt. Conversion is somewhat broader in its application, while exchange is a fully comprehensive term. To put it differently, exchange is generic, refund is specific. Exchange as relating to securities should be broad and inclusive; and because of this it may mean that any kind of instrument is made to take the place of any other. The exchange of bonds for bonds, in the majority of cases, as apart from refund, evidences an adjusting process; stock for bonds makes a funded debt out of what was a capital liability only; giving bonds for stock is purely and simply an exchange, and cannot, in any sense of the word, be a refunding operation. Though under some circumstances the effects of refunding and a pure exchange are identical, as, for instance, in their tending to unify a debt, in the main, the motives for the latter proceeding are fairly distinct from those of the other.

Therefore the question of Exchange, if it be regarded comprehensively, will be interpreted as meaning an absolute trade, so to speak, where one instrument sometimes displaces another and at other times does not, whatever be the financial considerations involved.

The exchange of bonds for bonds has already been mentioned as largely an outgrowth of some consolida-

tion scheme or of reorganization of a company or group of companies. So far as the great industrial consolidations, the so-called "Trusts," were concerned, it was generally avoided as a means. New bonds were issued and exchanged for bonds of the constitutent companies only when these latter could not be advantageously retired. Enough has been said of railroad financing to show that a mutual exchange of bonds is not customarily resorted to except, perhaps, in reorganization. Then there is considerable exchange of securities. Those bonds covering parts of the line which have earned exemption from scaling for their securities are generally exchanged for new bonds at equal value. Various arrangements of this nature grow out of the circumstances. Nevertheless, there are occasions, even in prosperity, when railroads adopt this method of retiring a certain bond issue. Holders may have the privilege of exchange, dollar for dollar, of another and larger issue, expiring at the same or a later date. Sometimes, it is desirable to be rid of bonds under a junior mortgage; so by making them exchangeable for better bonds on payment of an assessment or premium, the operation may be successfully carried out. A comparatively recent, though obsolete illustration of exchange was furnished by the Participating issue of the Oregon Short Line Railroad when this was given up for Collateral Trust bonds. In rare instances, redeemable bonds may be exchanged for others at the time of call.

Where bonds are exchanged for stock, however, there is a broad field. Reorganization and consolidation, of course, furnish many ingenious plans. When under stress of adversity, it is imperative that fixed charges be reduced somewhere. The best way to accomplish

this is to eliminate some bonded debt. Hence, it is customary to exchange for some kind of stock, usually preferred, the bonds on parts of a line that have not paid. Priority of claim generally affects such negotiations; and senior holders effect a fairly satisfactory exchange. The juniors, however, may be compelled to pay a specified amount in addition to their bonds or accept an equivalent reduction from their new securities.

By this process, a fixed charge is wiped out and the substitution of a dividend that is contingent on earnings is made. So successful has this been as a method of financing that many corporations have used it. Within the last fifteen years there has been a marked tendency to exchange junior bonds into preferred stock, fully $350,000,000 of such stock having been issued for old bonds. Considerable of this has been done by the "Trusts." The constituent corporations were merged by as conservative use of bonds as possible, and wherever possible, preferred stock was given in exchange for their funded obligations. One distinction should be noted in the exchange of bonds for new stock in the consolidation process. In industrial combines, the new stock fills the place of the bonds. In some railroad combinations both securities remain in existence, the larger company obtaining control by the stock it holds, whereas the former stockholder becomes a creditor of the system.

Exchange of bonds for new stock as in reorganization and consolidation is a mere accident, but as a privilege of contract in convertible bonds it has become a prominent feature in many large capital creations. The past two or three years have shown a decided tendency toward financing corporate requirements by issues of

such convertible rather than straight mortgage bonds. As a type of bond they are old; while they have come into prominence lately, they were quite common thirty or more years ago. Among the prominent systems which issued them at that time were the St. Paul, Burlington, New Haven, Reading, and Erie. However, between that time and three or four years ago, practically none were issued. As at present issued, stockholders in the company are often given "rights" in subscription to these bonds. By these "rights" they are entitled to the new bonds in some fixed proportion to their holdings of stock before the public offering. This proportionate distribution is due to the fact that the new issue of bonds is not likely to be as great as the outstanding stocks.

Conditions surrounding this exchange, or conversion as it is called, of the bonds into stock are manifold. First of all, the stock to be acquired is almost invariably common and may be authorized at the time of the bond issue or some time later when the exchange becomes operative. Indeed many corporations issuing convertible bonds have but this one kind of stock outstanding. How early or far removed the time of exchange may be, varies; in some cases it is after two and not more than twelve years from date of bonds, thus giving ten years, while again, as with the Pennsylvania 3½s, only five years is allowed; or the terms may permit it any time after a certain date, or within a certain number of days after dividend is declared, or upon any interest date. In several States, corporations under municipal franchises are under limitation of a specified number of years after which they cannot carry out such an operation, and again they are limited as to the amount of new stock which may be created

for these bonds; Ohio restricts it to one half of the paid-up stock. The basis of the transaction is no less diverse; and a few typical examples may be cited, such as exchange for assenting stock at 200 per cent.; into stock at $75 per share; into stock at not less than par; at par into common stock at $60 per share; one bond for ten shares of stock; one bond for five shares of stock, etc.

Unless there be some design in giving the stockholders an opportunity for very large profits, the basis will involve an estimated market value of the stock at conversion. Should, for instance, a bond be exchangeable for stock at par with earnings and general conditions indicating a prospective market quotation of 125 five years hence, at the beginning of conversion, the handsome gain to the stockholders as holders of the bonds is obvious. Estimate of market value in this manner is purely optional though customarily done. But this is not so with some franchise corporations in some States, for by statute, there, stock taken in lieu of bonds must not be valued at less than actual or market value. The opposite of this operation just described, in corporation finance, is very rare; that is, the exchange of old stock for new bonds and the elimination of that stock from capitalization. Frequently an exchange is made for purposes of control; one company gives its bonds in a predetermined ratio for another's stock; a holding company is formed and its bonds are exchanged for its constituent properties' stock.

Straight exchange of but one kind of security for one other is not always the rule. Many variations are met, especially in reorganization. All manner of trades are made in which one or two kinds of stock with one or two types of bonds may be received for

some old securities of either kind or both. Witness the plan of an industrial corporation carried out recently: it provided for the wiping out of the stock of the old company and the exchange of the old Income bonds, some seven millions, and the old first mortgage bonds, approximately three millions, for new stock and new bonds as follows: the new issues were to be 5 per cent. First mortgage bonds, 5% adjustment voting bonds and capital stock; each $1,000 first mortgage bond of the old company to receive $500 in new first mortgage bonds and $600 in new adjustment bonds; holders of old first mortgage bonds to subscribe to 35% of their holdings in new first mortgage 5s at 75, in addition to what they receive for their old bonds; they to receive as bonus with bonds subscribed for $175 in new adjustment bonds and $175 in new stock per $1,000 of old bonds held. In that case the new first mortgage bonds were placed at a valuation of 75, new adjustment bonds at 40 and new stock at 20, so that for $1,000 in old first mortgage bonds, the holder by the terms of the exchange paid $262.50 in cash and received securities valued at $982.50.

But, of course, such a readjustment of finances is not necessarily confined to the time when a corporation is headed for bankruptcy. Only a few months past the Wabash Railroad carried through a plan whereby it was enabled to retire some $26,500,000 debenture bonds. The terms agreed upon were for each $1,000 par value of debenture bonds, Series A, $795, par value, of new bonds; $580, par value, in preferred stock, and $580, par value, in common stock, of the Railroad Company. For each $1,000, par value, of debenture bonds, Series B, $720, par value, in new bonds; $520, par value, in preferred stock; and $520,

par value, in common stock of the Railroad Company, scrip to be issued in adjustment of fractional amounts. Practical examples such as these could be multiplied indefinitely, yet no two plans are identical; every one must be the product of its own circumstances and the result of an agreement between bondholders and the company.

Generally speaking, there is mutual advantage in every exchange of securities, whether the initiative comes from the corporation or bondholder: both gain by the operation, if not at the moment, in later years.

The redemption of a corporation by reorganization is its gain. If through this process it shall be brought into vigor once more, some permanent loss to its bondholders might be justified. Though the exigencies of such cases usually demand that such creditors scale their claims, yet the exchange is often made on estimates of what the securities will be worth when the full force and effect of reorganization is realized. In many instances the future has so appreciated the new holdings that eventually the original debt was realized. Financial history is not without its record of financial and considerable loss under these circumstances, but more times than otherwise just such advantages have accrued to bondholders who, compromising their claims, have lived to see that a reasonable trade was the wisest course.

Under those different conditions where bonds are given for bonds, bonds for stock, or some other arrangement is carried out, to largely obtain corporate control, the security-holder, being under no constraint, naturally expects some immediate advantage and generally gets it.

But in the scheme of exchange of convertible bonds

for stock of the same company, benefits to the holders are practically deferred for a while, yet the issuing corporation profits both at the moment and sometimes indirectly when its creditor reaps his profit. By the process of conversion, for instance, the Union Pacific Railway recently lifted its $100,000,000 convertible bond mortgage of 1901, the satisfaction of which released some 850 miles of lines from all bonded indebtedness. But more directly, the immediate advantage a corporation gains by giving this privilege of exchange is in returns from sale of the issue. It frequently happens that a corporation cannot with advantage issue stock as a means of obtaining money for its legitimate needs; neither can it put out a junior lien without sacrificing something in price and paying a higher interest rate. Necessity, however, demands a pledge of property or credit. Such being the case, a bond with this feature of future exchange ofttimes exactly fills the requirements of the situation with justice to both the corporation and its stockholders. By its issue, the corporation is enabled to borrow on a satisfactory basis where otherwise it might only get funds at an exorbitant rate.

From the standpoint of the bondholder, the advantages of this type of security are almost obvious. Though he receives a comparatively low yield—no more than a fair return—his attraction lies in the future profit from appreciation in the price of the stock which he may receive for his bonds. This privilege gives an element of favor to these bonds in view of the possibilities of the company and the prospective rise in the value of its stocks. The tendency of business in this country is to expand and the value of properties that are well managed to grow, so that

this conversion feature is almost sure, through stock appreciation, to be of value. In other words, the investor in these bonds is entitled to share in the future profits resulting from an increase and growth of the business.

CHAPTER XVIII.

BONDS AS COLLATERAL.

A GOOD bond, generally speaking, merits its position and reputation for three qualities it possesses—first, its *safety;* second, its *profitableness*, and third, its *convertibility*—this last taken to be the facility with which it may be sold. The first two, safety and profit, may be regarded as inherent qualities and constituting a cause, the effect of which is the third, salability. Yet the relation of this Trinity of virtues, vital as it is, is no more essential than the marketability of bonds to their usefulness for hypothecation as security. Because of their very character as a financial instrument, they naturally rank in high esteem, a position which has made possible the development to a high degree of the function of protecting another debt. Mere mention of the various aspects of this part of the bond business is sufficient to indicate its breadth. Precise figures indicating the extent to which bonds serve as collateral in securing debts of any certain class are practically impossible to obtain and, save for a single exception, that of the amount of bonds under bank note circulation, they change rapidly—from day to day and from week to week. By limitation of law not more than $9,000,000 of national bank notes may be withdrawn in any one month, consequently the ag-

gregate amount of bank currency and fluctuations in this amount are always matters of public information.

Every institution that loans money holds in its vaults bonds in greater or less amount, as security for these loans. Among these lenders the national banks are foremost. The tremendous figures in the loan column of every Saturday's bank statement represent varying but always large amounts of bonds. There are the large banks from whom other banks borrow, along with brokers and private bankers and others of all degrees of standing and wealth, on loans that may be for "call," that is, immediately returnable at the demand of the lender; for "time," running for a period of one or more months, or for "demand," in effect an indefinite time loan and different from the "call" loan in that the latter, in its practical application, works out to be a matter of twenty-four hours only, except of course, at the week-end or when holidays intervene. Supplementing the national banks are private bankers the larger and stronger of whom do a limited business of this character. Still other and greater factors than these in the loan market are the insurance companies and trust companies, both of whom can always show substantial items of loans to both individuals and corporations. There is still another type of institution to consider—the savings banks—who make large loans in the aggregate, but of a different class, never loaning on collateral notwithstanding the excellence of the securities that could be presented. All, therefore, except the savings banks, accept bonds as collateral for loans.

A different situation in this matter of collateral security, by deposit of bonds, is brought about by the requirements of the United States Government in its

dealings with the national banks. It too, holds bonds as collateral but not for what can be termed loans, strictly speaking. As is well known, these institutions are depositaries for some Government money, until recently only internal revenue receipts. Now, however, under the provisions of the so-called Aldrich law, the Secretary of the Treasury has authority to deposit customs collections in the national banks in precisely the same way as internal revenue receipts. For all this money, sometimes as much as one hundred and fifty millions of dollars, the Government asks security in the form of bonds. No time limit is set for the return of the money but special conditions in connection with its deposit sometimes develop. During the summer of 1906, to assist monetary conditions, Secretary Shaw made substantial deposits with New York banks pending the receipt of gold engaged abroad. As soon as the metal was received the money was returned and, of course, all such deposits were secured by satisfactory collateral in the form of bonds.

Furthermore the use of bonds as collateral is necessitated by the bank-note circulation of the country, already referred to. The necessity of bond-secured circulation is deemed by some authorities as an evil of our currency. However that may be, our province is to consider only the fact that bonds are the security of the Government in its permission to banks to issue circulating notes.

Until the action of Secretary Shaw in breaking with tradition and the supposed letter of the law, none other than Government bonds were accepted under any condition. He construed the law more broadly, to meet the exigencies of conditions, and for public moneys permitted the acceptance of some State, rail-

road and municipal bonds so that at the close of the year 1906 the Treasury held close to $85,000,000 of these miscellaneous securities. Now, under the terms of the Aldrich law, there is no restriction on the classes of securities that will be available as security for deposits beyond the provisions that the security shall be satisfactory and that on or before the first day of January of each year, the Secretary shall publish a list of securities that will be accepted during the coming year. It is assumed, of course, future Secretaries will be conservative in their selections. Nevertheless, there had been no deviation from the rule requiring Government bonds for bank notes until the recent Aldrich-Vreeland act, which permits the use of some municipal obligations as a basis for emergency circulation. Each week the Treasury puts out a statement of securities held in trust for national banks.

A further use is found for bonds as collateral, than securing bank loans, assuring the safety of Government moneys and underlying bank-note circulation; it is their utility as security for other bonds of the collateral trust type, to which end they have been largely used. Accepting these four general applications of the principle of bond security as practically covering the field, there are yet facts to be considered as to the practical working out of this function.

In bank loans to brokers, bankers, and others, perhaps the most variable conditions are met. In the first place, a great many loans are secured by mixed collateral, which may be bonds and stock; and a variety of both kinds. Banks, however, often do have all stock and all bond security. Private bankers are most apt to present mixed collateral, that is bond and stock or all bond security, while the purely stock houses are

generally the source of all stock collateral. Some banks will accept among collateral a small proportion of industrial securities, of such companies of the better class, which, by their records have established a standing, while other banks will take practically none. Collaterals, mainly, are only the best railroad stocks and the best bonds. The percentage of bonds or other securities in a batch of collateral is anything but fixed; it is the effect of so many conditions that even a generalization is impossible. And again, from day to day, substitutions are being constantly made.

Banks differ radically on some points, as for instance on the percentage of market value at which they shall accept collateral. A rough classification of the securities offered, however, is possible; experience and time have fairly well defined their relative position from the practical viewpoint of the banker. This much may be said though, of the policy of lenders along these lines —it involves considerations of three types; *financial*, *personal*, and, what might be called, *technical*. Under the first comes the general state of the security and money markets, fundamentally; under the second an estimate of the integrity of the borrower and the protection he would afford in the face of possible loss. Into this, of course, enters his financial standing. Toward this end, each bank has an unwritten classification of its borrowers. The status of a client is reflected in a measure in the valuation put upon securities presented. Large banking houses, naturally, enjoy a superior position to the small stockbroker.

And the third type of considerations embraces matters pertaining to the bonds themselves. *Intrinsic value*, as we may call it, would, of course, come in for scrutiny; for security is a factor. Then again, and

perhaps most important, is its *marketability*. Since the acceptance of a bond, or in fact any security, hinges largely upon the question—can it be sold if necessary?—obviously this would be the first. What it will bring in the open market, and how quickly, are vital. It has become almost axiomatic that the broader the market for an issue, the more readily acceptable is it as collateral. It is consequently to the interest of any corporation to secure the widest possible market for its securities, preferably an international market with constant arbitraging. Stability of price is also desirable in bonds for use as collateral. Indeed their value, as such, in many cases depends upon this. High and low priced issues, and those that fluctuate widely are less in favor than those more stable and close to par. Extreme times of money stringency or semi-panic materially alter these general conditions: the story is that in the financial crisis of 1893, a Chicago packer is quoted as saying he was able to borrow more money with his pigs as collateral security than on his Government bonds.

Now with bonds underlying collateral trust bonds and notes, many of the same questions arise. A financially strong company back of a new issue naturally lends favor to the judgment passed upon the collateral; a somewhat higher valuation is likely to be placed on the underlaid securities than were an individual to offer them for a loan. Yet bankers are cautious withal; before floating an issue each underlying security is critically analyzed from its security and market standpoints and the range of prices noted for some years and an average obtained. By this method a conservative judgment is arrived at and the percentage of market value that is safe is determined. But in the

case of Government bonds as collateral for bank notes there is less variation in all these different phases. All such are taken at their full face value, and well they may be, for all stand now at a premium in the market.

When the Treasury exercises it discretionary powers as to the acceptance of other than Government issues to cover deposits, it generally gives them only a percentage of their market value, and only such bonds are accepted as are lawfully available investments for the savings banks of New York and Massachusetts. At least, such was the precedent established during 1906 by Secretary Shaw, when these bonds were accepted at ninety per cent. of their market value. Incidentally, the action of a Secretary in accepting these bonds for such purpose is a tribute to their standing as investments. The improvement in railroad securities in this country has put them on an entirely new basis from that of fifteen or twenty years ago and railroad bonds now constitute better collateral for loans than ever before.

The personal element that enters into the relations between a borrower and his loaning bank are absent with the Government and its client, so to speak, the national bank. Be the bank where and who it may, if the Secretary elects to apportion to it public moneys, the standardization of required collateral eliminates individual considerations of any kind, so necessary in the other instance.

CHAPTER XIX.

DEFAULT AND REPUDIATION.

No better commentary on this phase of our subject is possible than the laws governing investments of savings banks. The universal provisions for their guidance in this regard are full of significance. Practically every State of the Union has legislated more or less specifically along this line and from the evolution of these laws, ever toward the better, has come the recognized standard, the law of New York State. In part it reads:

Trustees of any savings bank may invest in the stocks or bonds of any State of the United States which has not within ten years previous to making such investment defaulted in payment of any part of either principal or interest of any debt authorized by the Legislature of such State.

In the stocks and bonds of any incorporated city situated in one of the States admitted to statehood prior to January, 1896 . . . and which has not since January 1st, 1878, defaulted for more than ninety days in the payment of any part either of principal or interest of any bond, note, or other evidence of indebtedness or effected any compromise with the holders thereof.

In the first mortgage bonds of any railroad corporation of this State . . . provided that at no time within five years next preceding the date of any such investment

shall such railroad corporation . . . have failed regularly and punctually to pay the matured principal and interest of all its mortgage indebtedness and in addition thereto . . . at least four per cent. upon all its outstanding capital stock.

Mark the difference. Permission is here given to invest in the obligations of both public and private corporations. But with the former, the criterion is a matter of history—whether default or repudiation have occurred,—while in the latter, questions of financial position, capitalization, etc. are paramount. That this should be so is obvious. To ask whether a railroad had ever defaulted on its bonds, though answered negatively, would not be ground to assume that such action is never likely to occur. Such a test would be too easy to meet. Bending all energies toward this end and managed so as to provide for their funded debt regularly, railroads quite generally would come within the scope of the law. To them, therefore, more severe conditions must be applied so that the good and better may be weeded out and none other left than the best. The dividend requirement accomplishes this perfectly. More than a few roads pay their bond interest with unfailing punctuality and ever may, yet the absence of dividends on all outstanding capital stock, and that for some time previous, disbars them from the favoritism of the statutes. Necessity impels interest payment, but substantial profits is the only warrant for dividends. So if a railroad has taken care of its debts, maintained a good physical standard for the property, and still has been able to disburse to its stockholders substantial returns for some years, the inference that this will continue,

making its securities safe, is fully justified. On the other hand, the fundamentally different conditions in public corporations make the default and repudiation test imperative. In the one financial considerations hold sway, while in the other public morality is called into question.

Default, however, on bond interest may occur in any corporation, but repudiation is confined to strictly public corporations. No other would be able to repudiate its obligations and refuse to pay interest or principal, since means of redress are open to creditors to protect their claims.

Now the record of these disagreeable words is both bad and good. Bad in the history of some States and municipalities in the United States until about thirty years ago, and so with railroads on default until about the year 1890, when the period of their reconstruction was well under way. Happily, since then comparatively little has occurred.

After the Civil War, in the days of the so-called "carpet-bag" rule in the Southern States, enormous amounts of bonds were issued by them, their cities and municipalities, which later on were repudiated by wholesale, so that there are perhaps $400,000,000 of these bonds which never were paid. A study of the conditions surrounding the issues reveals almost a full justification for their course in many instances, but in many others no legal or moral right to do this could be shown. In the midst of a wave of general dishonor, after this manner, some cases of splendid isolation stood out. New Orleans, as an illustration in point, was considered a victim of financial mismanagement for some years prior to 1860, loaded down with a heavy burden of legally created obligations and so fully

responsible. Determined, however, to place honor before expediency, her people set about a programme of self-denial and sacrifice that brought them through the dangers without repudiation of a single dollar, without scaling a single bond or without ever passing an interest coupon.

So too in the middle West, in the days of railroad-building, millions of dollars of bonds were issued by municipalities throughout that region in assistance of these enterprises and afterward repudiated. Our national history, be it said with pride, is without a blot in this regard. The mention of its only repudiation by that name savors now of humor, when we remember what great loss was inflicted by State and municipal repudiation. Nevertheless, our Government may truly be indicted on this count. In the words of the Congressional act of June 30, 1864, "obligations or other security of the United States" was held to mean all bonds, certificates of indebtedness, national (bank) currency, coupons, United States Treasury notes, stamps and other representatives of value of whatever denomination which have been or may be issued under any act of Congress; yet about 1887 the Postmaster-General ordered that all stamps issued prior to 1860 would not be received for postage nor redeemed, and were worthless. This is the only known instance of repudiation by the United States of its securities. However, this should not occasion great apprehension, for an unused five-cent stamp of 1847 may now be sold for five dollars.

So far as their bond obligations are considered, no established government has disavowed any of its debt for a long period. More or less of this has been fashionable among Latin-American countries, particularly

where unstable government has prevailed and changes of régime have occurred almost in company with the Equinox. When the various Central and South American countries set up republican forms of government they quickly issued bonds, nearly every issue of which has not been without a checkered career. One issue in 1890 bankrupted a great London firm and all have been at times regarded as worth intrinsically about as much as the discredited securities of our Southern States.

The tap root of this evil in our country, as far as States and municipalities were concerned, was in the chaotic, or, perhaps better said, easy-going, slipshod and imperfect methods then prevalent. Political chicanery likewise in no small measure contributed to the result. During the days just preceding and just following the war, many municipalities, especially in some of the Western States and territories became careless and extravagant in the issue of bonds for all sorts of authorized and more than a few times unauthorized purposes. They were frequently voted with little or no restriction in aid of all sorts of railroad schemes and in many cases for railroads never built, and in some cases apparently never intended to be built. Instances might be given where bonds were issued to an amount greater than the assessed value of all taxable property within the municipality. It was not strange then that those who came a little while after should seek to repudiate the bonds when the time came for payment. The greater part of these repudiated bonds of Western States were those issued in aid of railroads or for some purpose which was not strictly a public undertaking.

But default on the interest of railroad, manufacturing, or public utilities corporation bonds is a different matter; it is an organic disease largely. Here the

springs of earnings may be drying up through depression in business or by the blanching sun of competition and the plant withers. In a word, such a corporation may be too heavily capitalized, so that the lean years find it unable to pay its interest fully and promptly; it may be under the strain of pressing competition cutting into earnings, or may be the victim of a dry rot of mismanagement unable to bring out of a good machine its full capacities. Unless it were a business that succeeded in spite of itself this last could hardly fail to bring it to the brink of bankruptcy.

It is a fundamental principle of law that for every wrong there is a remedy. There is, too, a sophism which permits an exception to every rule. In default and repudiation of bonds by a government or most states, we have our exception to our rule of law. Absolutely no remedy is afforded to a bondholder if a government should disclaim any of its obligations. He can sue neither it nor the states. The individual creditor is helpless except in rare instances where he may be able to press his action against some state officials. But several states, and greatly to their credit, have provided means of relief against themselves in cases of repudiation. Though he be left almost or quite defenceless against a government or a sovereign state, which is constitutionally forbidden to do wrong, he has open an avenue wherein he may reasonably hope to obtain reparation for his wrongs if the unpaid or dishonored bonds be of a municipality. This is a suit in the courts. Quite generally such proceedings may be instituted and at least some satisfaction gained. Indeed, the position occupied by municipal bonds today may be attributed largely to the determined stand of the United States Supreme Court in past years in

which it stood out against repudiation firmly in many cases before it, where this course was attempted.

Time has wrought many changes for the better. To-day an ounce of prevention is regarded as worth a full pound of cure, so there are numerous restrictions hedging about these issues, and also the further precautions of certification of legality and sometimes of genuineness. Irregularities are thereby reduced to a minimum.

The aggrieved bondholder of a railroad or similar corporation has essentially a different and less uncertain method of procedure. Here is definitive property on which he generally has a lien. Although figuring in the process, the courts are but the instrument through which he wields his power. Of course, there are generally restrictive provisions against its exercise until after a certain time has elapsed. A corporation may find itself in temporarily adverse circumstances, certain to pass away in a short while. In such cases it would be manifestly injustice to precipitate action because of an unpaid interest coupon and so, to guard against this possibility, there is generally stipulated something like this—that default must continue for one year or two years; that unless default is made on the first mortgage issue, junior holders cannot take action. But when these days of grace have expired, they are free to act. The story of what follows is long, as is sometimes the period between the beginning of proceedings and the final disposition of the matter. Briefly stated, receivership and reorganization follow failure to pay interest on mortgage bonds. Foreclosure and judicial sale are the nominal rights of the bondholders, but seldom does it come to this extreme. The only great railroad ever sold under foreclosure was the Union

Pacific, a few years past, which transaction, after all, was much of a formality.

Not alone must bondholders weigh the effect of foreclosure on their securities, but the possible opposition of stockholders to such a plan, for by the terms of some mortgages obstructive tactics may be indulged in and delay an adjudication for years. Default, therefore, means practically nothing more than reorganization. On the vote of a certain percentage of bondholders the trustee may act for them. In Massachusetts he may contract for operation of municipal franchise corporations after conditions of the trust deed are broken. In either reorganization or foreclosure the paramount questions of priority arise. On the supposition that default on a junior second mortgage has brought about foreclosure, let us see what chance the bondholders stand. The sum thus obtained would be applied first to the satisfaction of the principal and accrued interest of the first mortgage and any balance remaining would be used to satisfy the second and succeeding liens, and after all this, were anything left, it would be distributed to the stockholders. But the thing is more easily said than done. With a possible floating debt, a swarm of obligations, secured and unsecured, perhaps liens for taxes, labor, etc., and then two or three kinds of stocks, it is often necessary that all creditors present their claims to a court and for it to establish their priority.

The relative position of certain issues is a structural consideration; it depends upon how the financial structure was raised. Generally speaking, the specific liens, or prior liens, as they are known, such as divisional bonds, rank ahead of the general mortgages. Yet there are first mortgages, in fact as well as name,

covering the entire property. After these general liens come such issues as debenture, income, etc. This position in the general scheme of things is of vital importance to a bondholder in reorganization; in proportion to the strength of his lien is he able to make his influence felt in a readjustment of affairs.

One of the first effects of default of interest on many bonds is its automatically bringing due the principal of the obligation. This enables holders to bring action. But through rearrangement the obligation may be continued until its originally stated maturity. If this rearrangement be favorable, the bondholder may emerge with little loss, but generally more or less loss is attendant upon the proceedings. Scaling of interest may be done or bondholders may waive all unpaid interest upon condition of prompt payment in future. If receivership be the condition its baleful influence is felt on the market quotations for the company's bonds and the discredited securities are poor collateral on which to borrow.

In the realm of public finance, default and repudiation would be heavy handicaps to bear—they would mean disrepute. The sins of years ago have been fairly forgiven, but a repetition would mean serious loss of position in the community of states or nations. Such heavy loss could not now be inflicted on creditors of a State or municipality without a severe punishment in its reflex influence. Thereafter their credit would stand on a very low plane and money could be borrowed only at exorbitant rates, if at all. Such a fate would spell stagnation to whomsoever it came, for all nations, states, and smaller divisions have constant need of fresh funds to keep pace in the march of progress.

CHAPTER XX.

REORGANIZATION.

We have seen that inability to meet fixed charges, through decreased earnings, increase of expenses, or other causes, means for a corporation inevitable bankruptcy; and if the literal legal rights of the creditors be granted, a sale of the property under foreclosure for their benefit, unless means are devised to avert this calamity and put the corporation upon its feet again. Escape from this utter fate of bankruptcy is generally the work of reorganization, when all affairs are put upon a new basis and life is begun anew with better chances of weathering the storms. It is not necessary, however, that a company come into this sorry plight before such action may be taken. Reorganization is by no means always to save from total wreck, but often a rehabilitation that infuses greater vigor even during a period of prosperity and the full payment of all debts. Some great railroad and industrial consolidations have resulted purely from a recognition of the advantages to be gained by welding together, by means of reorganization, a number of companies while fully solvent, although it is true the majority have arisen out of the precarious and weakened state in which some companies have found themselves. The record enumerating the long list of railroad

reorganizations of the early nineties bears evidence to prove this, and a number, until now, have passed through two such ordeals and a few three times, among the latter being the Erie Railroad. At one time more than fifty thousand miles of railways were in the hands of receivers, and between 1885 and 1905 such properties as the Baltimore & Ohio, Atchison, Topeka & Santa Fé, Chesapeake & Ohio, Erie Railroad, Philadelphia & Reading, and now Southern Railway passed through the troublous times of reorganization largely without foreclosure, for, to repeat, a thoroughgoing readjustment of the securities of a road or system in such times does not imply a sale for the benefit of creditors. On the other hand, during solvency it means a more advantageous arrangement of securities and the strengthening of finances generally, and when the result of insolvency, settlement of the claims of all interested on an equitable and satisfactory basis so that the property may be released from court proceedings and again managed as a going concern. Even though a company be in distress it may yet avoid receivership and foreclosure if co-operation among all security-holders is to be had, before intervention of the courts and a receiver be a necessity, but this is seldom possible. Hence with the institution of receivership some difficult financial problems present themselves. Generally speaking, they are about these: liquidation of the floating debt, of which almost every company in trouble has a large amount; rehabilitation of the property—that is, restoring its physical condition generally; obtaining cash funds for this purpose together with immediate operation and, further, making provision for future needs. Involved in all this is the monumental task of reducing fixed charges to

a point no longer endangering solvency and yet harmonizing the different interests involved, a task requiring the highest type of financial knowledge and judgment.

This is best accomplished by the immediate formation of "protective" committees, as they are known, representing each class of security or perhaps one committee representing all. Such might be appointed by the receiver or the directors to formulate a plan to which security-holders would be invited to assent. It could, however, be self-constituted, composed of some of the larger holders scattered over a number of States, or, as is generally the case, a group of representative financiers whose plan would be apt to be just in every particular and meet with success, receiving the indorsement of all. To this end bondholders are invited by public notice to deposit their securities with some trust company, as trustee, and when a majority have been so lodged an agreement is prepared and presented for approval. The opposite course may be followed—formulating plans of reorganization and under them asking the approval of the bondholders. But the variations in this procedure are many and, of course, entirely governed by the conditions prevailing at the moment. Should a large majority accept the proposed arrangement, the remaining bondholders are generally compelled to abide by their action. Any contest to demonstrate the contrary would meet with scant consideration in the courts, for it would most likely be held that with a majority assent the plan becomes operative. Suppose this were not so; a haggling minority would disrupt what would generally be a fair adjustment, and to insist upon legal rights rather than evince a regard for the commercial necessities

of the case would in the end bring no more than the due proportion of the value obtained, which in all probability would be less than under the plan of reorganization.

The activities of this committee are manifold and its scope broad. To determine the position of each security and amicably adjust the rights of many conflicting claims is no small labor. First of all some fundamental considerations must be remembered, as for instance that the unquestionably good bonds on the property should be so recognized and a nicety of discrimination made between the really good and those that are not. In the main, a plan of reorganization involves an exchange of securities so that the burden of loss, where necessary, shall be equitably distributed. How shall this be determined? Before any decision can be reached an analytical examination of the property must be made to put a proper valuation upon every constituent part and its relative value to the whole. Subsidiary companies of all kinds, leased and branch lines, must be thoroughly sifted to ascertain if the basis of division of earnings between the parent company and the smaller company has been just; for largely on this showing depends the strength or weakness of some issues. Nor is it possible to arrive at an intelligent conclusion without going back for some years. To this end, the statistics of previous years are used. In other words, accountants would seek to determine the earning power behind each issue of bonds and whether interest has been fully earned for that period. All this done, the committee has the groundwork for its new structure.

In every reorganization more or less immediate loss falls upon the majority of security-holders. Possibly,

absolutely prior liens may come through with none at all, but it is only those most firmly intrenched, and which demonstrate beyond a peradventure that they have contributed to net earnings their full share, that fare so well. In so far as they have earned their interest is their lien retained. But losses are not borne by the bondholders or creditors alone; the owners or stockholders stand to bear their part of the burden. Their opportunity is immediately at hand. As we have said, there must be considerable cash raised for current expenses and to give the company its first lift out of difficulty. Ordinarily the first resort is an assessment of stockholders. It is no more than fair that they should raise a good part of the cash if they wish to retain their interest in the property. This they are generally willing to do. Yet the conditions imposed by the reorganization plan of bondholders have sometimes been so manifestly unfair that shareholders have had recourse to appointment of committees to represent them, and even in a few instances presentation of their case before the courts. Under other circumstances unanimity among all classes of security-holders is readily forthcoming, but in extreme cases an unacceptable plan is just enough to compel organization among the disaffected interests in self-defence. Though stockholders' claims, being residuary, are generally weak and little felt in reorganization proceedings, their voice is heard, at least in concurrence.

When reasonable in amount, payment of such assessments is obviously the part of wisdom. Let the stockholders refuse to pay and the bondholders may take the property, destroying the value of their stock and making the loss absolute. They would be doubly unwise in such a course, since the payment of assess-

ment may be carried along some months, giving ample opportunity to procure the money. Furthermore it would generally be shortsightedness. As we shall presently see, in the exchange of securities are given new securities that reviving business and a rehabilitated condition are sure to enhance, perhaps to the point of actual profit.

For the bondholders the degree of immediate loss is determined by the position of their security. Upon the stronger may fall the necessity of accepting a reduction in principal, although continuing at the same rate of interest; a reduction of interest; or, if affairs are badly demoralized, some of either. In a few instances, junior bondholders have been asked to pay an assessment, for the stockholders could not be relied upon to furnish the full amount. Unjust as this is, there may be no alternative if they would retain as good a hold on the property as at present. The Atchison, Topeka & Santa Fé reorganization committee in 1895 put it bluntly to these junior creditors when they said in effect—out of $14,000,000 cash to be raised, $10,000,000 is all we believe the stockholders will stand; it behooves you therefore to stand the other $4,000,000 for your own protection.

Every successful reorganization means—and in fact it is fundamental—that there be a rearrangement of securities. Old securities which existed before the corporation became insolvent disappear and new ones take their place. One bond issue may be resolved into two, or vice versa. Frequently the former stock is replaced by other issues. As a general rule there will be fewer kinds under the new plan than before, and in apportioning the losses and making satisfactory trades lies the complexity of the whole matter. *Im-*

mediate loss are the words heretofore used in alluding to this phase of reorganization. This is meant to indicate that it is possible for none to suffer ultimately, by the expediency of exchange of old securities for new ones of immediate value, with others whose value will be developed by the future. The underlying principle is that security-holders, who under the stress of necessity, must sacrifice something, should have opportunity of regaining that much. Hence the practice of giving new bonds with no obligatory interest, and new shares in the nature of compensation. To the bondholders asked to sacrifice principal or interest was given an amount of income bonds in some cases and in others preferred stock. Non-cumulative preferred stock was better than income bonds, since with the latter, though no interest need be paid, the principal would in a few years become due. Likewise stockholders, for their assessments, often received income bonds or preferred stock.

On first thought, this practice of giving new securities to represent their concessions would seem to defeat a primary object of reorganization, and that is, the reduction of capitalization. So far as par value is considered this is true, but it does not prevent the desideratum of reduced fixed charges. If all capitalization in excess of an amount where fixed charges will be well within minimum net earnings, is represented by no stronger claims than income bonds and preferred stock, little danger may be apprehended for some time. So in the general exchange of securities it has happened that, while the bonded debt representing fixed charges has been pared, the total has been increased. New mortgage bonds might have been sold, necessarily at a low price, to raise the cash neces-

sary, but this would have increased fixed charges. Better far was it to assess everybody possible and give them a prospect in form of new paper such as above. This was not always done; the disturbed securities in other cases were reduced or converted into claims of inferior lien and all without any increase of capitalization. Of the two plans the latter would seem most judicious, for, should future trouble overtake the company, a greatly increased capitalization would only tend to increase the difficulty of a favorable solution.

Even though the outstanding capital be not increased immediately, provision is made that will eventually bring about this result. In the substantial amounts of authorized bonds we find this. The necessary betterments of future years are anticipated by this action. Many large issues of mortgage bonds are in part reserved for this purpose and their issue limited to a certain amount each year, and then often only with the consent of a majority of bondholders, majority of stockholders, or even both.

Thus among the effects of reorganization are increase or decrease of capitalization and at least a provision for the former. Whether capital is shrunk or enlarged there is always a simplification of securities effected. A dozen issues may be fused into two and a lot of miscellaneous bonds consolidated into some comprehensible form. The advantages to be derived are obvious; opportunities for development are afforded quite impossible under a mass of scattered issues. Yet another effect is readjustment of relations with subsidiary companies, leased lines, etc. In the changes of business fortunes, contracts may have become burdensome and traffic and other agreements proved unprofitable. Now is the time for modification of all

that are onerous. Rental of leased lines may be reduced and agreements with independent or connecting lines for interchange of traffic, division of earnings therefrom, use of cars, etc., may be continued under new terms. Absolute repudiation of such contracts is impossible without the formation of a new company and, as an antecedent, foreclosure. But this would produce a complication still more difficult to handle than others. The old company was probably incorporated years ago under a very favorable charter and now, should a new company be organized, some privileges could not be obtained in a new charter. Desirability, therefore, of maintaining an old charter and preserving the old company is a potent factor in determining the attitude toward old contracts. If the old charter is of decided value, the advisability of reorganizing without foreclosure and making the best terms possible with security-holders of subsidiary companies is patent.

A noteworthy illustration of ingenuity used to accomplish an equitable adjustment of a crippled company's affairs is seen in the case of a street railway in the West. The property was sold to satisfy the first mortgage bonds. Its real purchasers were the bondholders' committee. This committee caused the title to be taken in the name of another railway, a corporation of nominal capitalization and officered by the committee. (Foreclosure and sale, in any instance, is but a convenient way of transferring title.) This company is now operating the property and will continue to do so until the committee feels sure as to what the result under normal conditions should be. When that point is reached a reorganization plan will be prepared and made effective.

The experiences of railways in the United States furnish almost wholly the material in consideration of this important subject and from the principles evolved, together with the natural development, has come a great and strong financial interest.

CHAPTER XXI.

VOTING POWER.

SAVE for the classic exception to a rule, there would be no occasion to consider this peculiar phase of bond issue. Contrary to a basic principle of corporation finance, in that a creditor is in no sense entitled to a voice in administrative affairs, there are bonds carrying with them voting power. It is absolutely at variance with correct practice and indeed no company in a healthy financial condition, with marketable credit and prosperous business, ever resorts to this. For resort it is—an expedient by the company, and a privilege rather than a right for the bondholder. Only in the extremities of financial difficulty such as a time of reorganization is it ever granted. The granting of voting power to bondholders is so radical a departure from accepted methods that naturally not many instances are found. Indeed, less than a dozen issues now extant carry this privilege. There is no well defined course followed in this, but the greater number of issues so treated are income bonds. In one or two instances, first and second incomes were issued but only firsts were permitted to vote. Other than these, a few mortgage bonds are accorded this privilege besides a few scattered issues of debentures.

Among the last named and most prominent in this

respect were two series of outstanding debentures of the Wabash Railroad. These series, denominated "A" and "B," were entitled to one vote at the stockholders' meetings for every $100 of principal and to nominate one half of highest even number of the board. For an illustration of others so entitled we turn to the Erie Railroad. Out of the last reorganization, in 1895, came $35,000,000 Prior Lien bonds and $140,000,000 general lien, both of which were given voting power in the proportion of ten votes for every $1,000. Possibly the Atlanta & Charlotte first mortgage 7s, mentioned elsewhere, and which fell due in 1907, were the only example of a bond so well secured and at the same time able to exercise this office. All these show that one vote for every $100 of principal has generally been the representation given. In this it corresponds to the general practice of stock voting—one vote for every share of par value of $100, although it is not imperative that this be the ratio. At the option of the company or of those conducting the reorganization, one vote for every $500 could be given or one vote for each complete bond, but the disproportion between the stockholders' and bondholders' power in such an arrangement might militate against a successful outcome of this part of the plan.

Where voting power has been given to bonds, the greater part of these have been unsecured as to interest. Income issues are, of course, secured as to principal, but in all cases, whatever the type of bond, secured or unsecured, the underlying idea has been to vest in the holder ability to protect his interest. In reorganization, as stated, income bonds are given, to which shall accrue interest "if earned." Just here

is the point. With so flimsy a claim on the earnings of the company and without any power, the bondholder has no means of compelling directors to pay him interest, even when apparently earned. Given a position of equality with stockholders, there is some hope that by his voice in affairs he may come to enjoy a portion of profits. In the reorganization of the American Rope & Twine Co., the so-called "Cordage Trust," the income bonds were given a position of commanding influence above the stock for a limited time. They may elect a majority of the board of directors until interest has been paid on all bonds for two consecutive years. After that is accomplished, the majority vote goes to the stock.

The fact that many income issues of early reorganizations never received an interest payment accounts largely for the privilege of voting given the later ones. But where the issue is a mortgage bond, with obligatory interest, while the intention is still to give the bondholder opportunity to protect his interests, it works out somewhat differently. His claim, to be sure, is definite, but if he is unable to be felt in the policies of the company, it may be again endangered by unwise financial management. Here then his vote gives him power in matters such as affect the increase of debt, etc. Thus it has been good policy to extend the privilege of vote to some bonds, for, conscious of a status in the management of affairs, the bondholders' fears have been allayed. The position of senior mortgage bondholders with a vote is especially good; having a strong claim, a lien back of it, and behind all the ability to help guide affairs to their welfare, the position is enviable among securities. But the income bondholder without vote stands in somewhat the

same relation to his company as the common stockholder, aside from the voting power. The voting income bondholders may exert some influence on the policy of the company, yet alike with all stockholders they are partakers of profits alone. Exactly so is the case of voting debentures.

Withal that these bonds have been vouchsafed this measure of self-protection and privilege, few avail themselves of it. Except for the Wabash debentures of recent months, pronounced activity in company affairs has never been noticeable, partly for the reason that it has been unnecessary and partly because of the inconvenience attendant on the operation. To vote bonds requires their registration as to principal, at least. Similar to the record of stockholders that is necessary to be kept, is one of voting bondholders. Unless an imperative need for action exists the bondholder is prone to neglect his prerogative.

In a greater or less degree, voting power in a bond is an element for good in its market standing. Such inferior obligations as they usually are need the stimulus of some special conditions to give them any kind of standing. Hence, potential with trouble for the management in the event of grossly unfair treatment, there is ever likely to be a show of justice, and this is in turn reflected in their quotation.

CHAPTER XXII.

MUNICIPAL BONDS.

Public debt is ever a subject of more than ordinary interest. Its vital importance in the structure of our public economy makes it worthy of a close study alike to the banker and student. In this country it comes under three heads, each distinct and practically independent of the others. There is the Federal Government contracting and administering its own debt; then the several States and Territories with their individual obligations, and again the lesser divisions, counties, towns, cities, etc. The history and development of these three phases individually could well constitute a complete treatise, and would be highly instructive as illustrating certain tendencies connected with public indebtedness. While not attempting a discussion of these broad questions, a few general facts pertaining to the last-mentioned phase of public debt should be considered here.

Viewing public debt in its most general aspects, a comparison of figures is inevitable. Indeed in this manner the relative position of the immense volume of municipal bonds outstanding is best appreciated. Reverting again to an earlier chapter it may be noted that of the grand total of all bonds fully twenty per cent., and likely more, are of this class, which in ap-

proximate figures represents more than $2,000,000,000 of these securities. Over against this something over $900,000,000 of interest-bearing debt of the Federal Government must be put, and a further comparison with State indebtedness presents still stronger contrast. The bond obligations of all our States and Territories make a total well under $275,000,000. It should be remembered, however, that many municipalities carry floating debt of one kind or another and many others have varying amounts of obligations of a temporary nature. Though contributing to totals, these latter are sufficiently unimportant to be passed over as a factor in municipal debt, aggregating but a few millions of dollars.

Comparison of totals may be profitably followed by some analysis of them. The stupendous figures for municipal bonds lead naturally to a consideration of their source. It might be supposed that the bond-issuing policy of a State is a fair index to the action of its municipalities in this regard. Were it not for the important part that constitutional restrictions play in preventing States from accumulating a heavy bonded debt, this might afford a basis for comparison. Yet there is something to be learned by noting the debts of individual States and of the States by groups. Extreme conservatism reigns in a number of States, since they show no bonded debt whatever, but this does not always hold when their municipal obligations are considered. New Jersey and Ohio are cases in point.

It is, of course, practically impossible for developing communities to be without debt, perhaps like their States. The exercise of their functions for improvement is essentially local, hence the debt becomes local.

Contiguity of these minor divisions in the building of roads, for example, makes for good highways throughout the State, and unless such a work is a special project the State is relieved of the necessity of its prosecution. It follows then that the States of greatest development are likely to show the greatest municipal debt; and so it is with few exceptions. All our large cities have great piles of debt to take care of: New York with over half a billion dollars; Boston, a hundred million or over; Chicago, twenty-five million—and so on. The thickly settled communities show the largest amount of absolute debt, the greatest per capita, and the highest ratio of increase. New municipal needs arising out of the growth in population and business have made large municipal expenditures natural and inevitable. New cities have grown up, old ones have enlarged, and demands for improvements have multiplied greatly.

Comparisons of sections of the country under State groups bears this out. The *Financial Chronicle* adopts a geographical division for this purpose that serves well and is therefore used here. In the North Atlantic States, covering New England, with New York, New Jersey, and Pennsylvania, we find an approximate total of $1,000,000,000; in the South Atlantic division, Delaware, the Virginias, Carolinas, Georgia and Florida, $165,000,000; North Central group, comprising the States which have enjoyed wonderful development in the central West, namely, Ohio, Indiana, Illinois, Michigan, Wisconsin, Minnesota, Iowa, Missouri, Nebraska, Kansas, and the Dakotas, $550,000,000; South Central division, Kentucky, Tennessee, Alabama, Mississippi, Louisiana, Texas, Arkansas, and Oklahoma, $200,000,000; and the Western division,

Montana, Wyoming, Colorado, New Mexico, Arizona, Nevada, Utah, Idaho, Washington, Oregon, California, about $140,000,000; which, in comparison with the figures for the year 1890—North Atlantic $470,000,000, South Atlantic $166,000,000, Northern Central $320,-000,000, Southern Central $135,000,000, Western Division $45,000,000—emphasizes the point that the debt has grown fast mainly in the sections where it might be expected, yet in some degree throughout the whole United States. Again the figures show that the greater part of the bond issues is still supplied by the North Atlantic tier of States as above laid out. In 1906 out of about $202,000,000 of bonds placed $107,000,000 came from that group. The Northern Central Division stands next in importance, being accountable for about $55,000,000 of the total. The other parts of the country furnished relatively small contributions and the South Atlantic group especially is credited with a very small amount—only $6,642,880.

A still finer analysis of the question of expansion of municipal debt and its comparison with State and Government debt reveals these facts: that national debt, except for the period during the Spanish War, has been almost constantly declining since the Civil War; that State and Territorial debt has decreased consistently until recently, when some extension began due principally to Massachusetts and two or three other States; that county debt throughout the country has gradually increased, but comparatively slowly, and that the debt of cities, villages, townships, and school districts has increased most markedly in a course of expansion that has been very rapid.

It has been observed that municipal bonds, though constituting almost entirely municipal indebtedness,

are not yet the gross debt. Gross debt must necessarily include all floating obligations and those temporary in nature—of course everything. Neither is the total of bonds issued by some municipalities the net debt. Upon this question of net debt, in many cases, hinges the amount of bonds that may be put out. All municipalities are limited to a percentage of their assessed valuation; hence we find statutory provisions something like this: No bonds can be issued which shall increase the net debt to an amount exceeding five per cent. of the value of the taxable property therein as appraised for assessment of taxes. In explanation of the above this is said: To ascertain net debt, all debts must be included except the following, which must be deducted: water debt, "cash and other means" in treasury, and sinking funds applicable to payment of debt so included. Or again: "Net indebtedness as used above shall mean the indebtedness of a county, city, town or district, omitting debts created for supplying the inhabitants with water and other debts exempted from the operation of the law limiting their indebtedness, and deducting the amount of the sinking funds available for the payment of the indebtedness included."

By such interpretation, in some States many municipal bonds may be issued even after the maximum amount as fixed by the law is reached, but they are generally for some profit-making enterprise where the earnings may be applied to the payment of interest and redemption of the bonds. The illustration given names a low percentage, but in other States—New York for one, where it is ten per cent.—higher figures prevail. Where the law is liberal in its exclusions from net debt, the percentage is generally low, and

vice versa. In some cases the debt may be a definite percentage and no more. Another circumstance that enables cities in New York State to issue bonds far beyond the actual ten per cent. limit is found in the position of bonds held in the sinking funds. They are held not to be a part of the city debt within the meaning of the provision of the constitution limiting it, since they are considered as a debt that the city cannot be called upon to pay, though the payment of its interest into the sinking fund may be compulsory. Incidentally, a different stand is taken by the Interstate Commerce Commission in its requirements of railroads. In their computation of debt, bonds belonging to sinking funds must be classed as outstanding and brought into the figures.

In view of these variations of conditions with locality, *net* municipal debt has not everywhere the same interpretation nor does it represent all bonds issued. Property valuation, therefore, is no assured restraint on bond issuing ability although it is the best working basis. It should be noted that municipal debt is in a ratio to the assessed valuation and not the actual. Here again is an element affecting the total amounts. Throughout the country, assessed valuation varies considerably: Eastern and New England States show a high valuation, averaging seventy-five to eighty per cent.; Western Middle at sixty per cent.; Western, forty per cent.; Pacific, fifty-five per cent.; Southern, seventy per cent. The date of valuation also varies from once a year to once in several years.

Municipal bonded indebtedness everywhere is established and carried after certain general principles, tending, of course, toward uniformity in methods. Beginning with the smaller divisions of government,

each has its officers empowered to act when the bonds are authorized. The burden in each instance is on the particular municipality and that alone, so that county bond issues in California and Maine have no peculiar distinctions. There are, however, a few uncommon situations existing in this country affecting municipal debt. One is in Massachusetts. The city of Boston is the central point of a "Metropolitan" district, including about forty towns and cities within a distance of twelve miles. All of these are liable for three kinds of debt: Metropolitan, Municipal, and State "direct." The unusual point of the situation is that many Metropolitan obligations are issued "in the name and behalf of the Commonwealth and under its seal," and are "deemed a pledge of the faith and credit of the Commonwealth," thus creating a State debt; but the State is empowered through the Supreme Judicial Court to collect from the municipality directly involved, such apportioned annual contributions as will pay that debt. Hence these municipal debts are to the State nominal or contingent, making State debt thereby fall into two classes, Direct and Nominal or Contingent; for the former the Commonwealth is directly and entirely responsible and for the latter it has loaned its credit to sundry cities and towns. The city of Washington in the District of Columbia furnishes another illustration of diversity. Here the functions for providing for municipal debt are assumed by the Federal Government. The District has a funded debt provided for by sinking fund, the charge of which is vested in the Treasurer of the United States. Congress annually appropriates money for interest and for final redemption. Nowhere else does a similar condition exist since here the debt is consolidated into

one fund, and no such items as water, sewer, and improvement bonds are found but all is known as the "Bonded debt of the District of Columbia."

Municipal needs are of a similar character throughout the land; the requirements for schools, courthouses, bridges, roads, etc., are common to all and the necessities, of course, multiply in ratio with size and growth. If a brief classification of the large majority of such bonds were necessary, they could all be included by the word—improvement. So far as municipal bonds go, few are distinctively peculiar to any locality. In some sections of the country private enterprise produces special types such as irrigation bonds, in the arid lands of the southwest and in low lying and wet portions of some States, drainage or ditch bonds, with the reclaimed land as security, but seldom do internal government divisions put out obligations so peculiarly distinguished. About the only ones so marked are the levee bonds of the westerly Southern states, Louisiana, Arkansas, and one or two others. Numerous places in these States must be shielded from inroads of the rivers, which lays upon the communities the necessity of self-protection. Here and there among cities we find odd types, the creation of special circumstances. For instance, rapid transit bonds, to build underground railways; deficiency and revenue bonds, to tide over a temporary need for funds or the anticipation of tax collection out of whose proceeds they will be redeemed; judgment bonds, to provide funds to meet judgments of the courts, and a few others equally uncommon. New York City has some "General Fund" bonds, issued for the purpose of releasing the surplus revenues of the sinking fund of the old city of New York

(amounting to upwards of $8,000,000 yearly) and to allow the money to be applied to the reduction of taxation; Yonkers, N. Y., has "Redemption" bonds, issued to purchase lands bid in by the city at sales of property for non-payment of taxes and assessments and the bonds are to be paid out of money received for redemption of lands so purchased; New Orleans has an old issue called "Premium" bonds, par value $20, issued in 1875, payable 1925 at 5 per cent., interest not paid annually but when the bond is paid. By a species of lottery scheme a certain amount of bonds are redeemed each year at which time money prizes from $20 up to $5000 are distributed by lot amongst the holders of the redeemed bonds. By this method the investment may be terminated at any time, when the holder will receive principal, interest since date of issue and perhaps a prize of substantial value.[1] Such financing is, of course, a relic of days long since past.

One other type of municipal issue should be mentioned—that is assessment bonds. Issued to improve certain streets, build special sewers, etc., or do some such work, the abutting property is subjected to special assessments to provide interest and finally extinguish the debt under the assumption that it, most of all, if not alone, enjoys the benefits. For this reason, too, the safety of these bonds rests on that property. The justice of this position is questioned by some able men. That a fine street materially enhances the value of a whole neighborhood and through its facilities for traffic adds to the general welfare of the whole community will not be admitted by objectors

[1] See *Financial Chronicle*.

to the plan. At any rate, these bonds lacking a direct claim for their safety on the issuing municipality are poorly regarded in the investment market and therefore avoided wherever possible.

CHAPTER XXIII.

SINKING FUND.

Many methods of paying off corporation debts have been devised but of all, none is capable of such diversity of application as that of the Sinking Fund. Nor has any claimed such universal attention as this. For nearly two hundred years economists and others have studied the subject closely and given it extensive treatment in their writing, so that to-day the bibliography of sinking funds is voluminous. Nearly all this writing, involving many theories and recording the history and operation of this mode of extinguishing debts in Europe and America, finds its inspiration in the relation of sinking funds to public finance and the economic effect of their institution and maintenance. Public debt was first to engage the serious attentions of the best financial minds of by-gone years and as its extinguishment became a matter of growing importance means for its accomplishment were sought. The sinking fund plan was largely adopted. For its beginning we must go back to the year 1716. England's debt was "funded" by the revenue from many separate sources being pledged to redeem some special part of the debt. The complications that grew out of this led to a simplification and from the surplusses of three principal funds established to take care of

the interest requirements, was built a sinking fund "to the sinking of the national debt and to no other purpose."

Many changes from the original method of applying a sinking fund have been wrought and in some cases it has been discarded as inefficient, yet it still exists as an important element in some phases of public finance. With the development of private enterprise and issuing of large amounts of bonds it naturally became a consideration in this field, although it never attained the importance here as in its relations to the public debt. Before the adequacy of this means of invariably sinking a debt was brought into question, universal adoption was the rule, but immediately that question was raised and its shortcomings demonstrated, it became less a factor in public finance. Generally speaking, its position in both public and private finance, especially the latter, is now less prominent than in past years and the indications are that this method is growing out of favor to some extent.

Of all corporations, governments are least committed to the maintenance of sinking funds; their general policy, as already explained, is to refund all debt in the greatest measure possible, thus practically perpetuating it. In the smaller civil divisions, the practice is widespread, a very large proportion of State bonds throughout the Union carrying with them provisions for this means of retirement although some States have entirely abolished the practice. Municipalities, large and small, of all types, still more generally have sinking funds, few or many. Like unto Governments, these all do refund many of their obligations, but the other method of providing for payment of their debts is almost universal. While in some

instances sinking funds are demanded by law of municipalities as when the charter of a city compels it, no such standing requirement applies elsewhere. They may be maintained by states, but if mandatory the provision would be embodied in the specific act authorizing the issue and not in a constitutional enactment. If the law were not a dead letter, as it has been for almost a dozen years, the United States Government would be consistently maintaining a sinking fund. Back in 1868, the sinking fund first appeared in our Treasury accounts and then to strengthen the credit of the country abroad. Under the original law one per cent. of the debt was to be retired each year. Fully explicit as this is, the Secretaries of the Treasury for some years, nevertheless, have exercised discretionary powers in its observance, consulting rather the condition of the Treasury than the mandate of law. In 1905, for instance, something like $4,000,000 of bonds were purchased for the sinking fund while the amount should have been nearly $60,0000,00. Altogether the Treasury owes the sinking fund something over $500,000,000.

Turning to other types of corporations we find almost entire absence of sinking funds among steam railroads. Probably not more than fifteen per cent. of all such bonds falls within this category. Industrial corporation bonds, on the other hand, are very largely sinking fund issues; it is safe to say seventy-five per cent. of the total outstanding are such. There are yet other types of business that employ this method in their financial arrangements. The public utilities bonds quite generally, although not so much as the last mentioned, are of this character. Further than this are mining, lumbering, coal companies, and the

like, who, we might say invariably, fully to the extent of ninety-five per cent., maintain sinking funds for their bonds. Thus it is that the practice varies with the class of corporation. It may be entirely absent, partially used, or the rule rather than the exception; it is mandatory, optional, or expedient, much according to this. Mandatory only with some public corporations, and optional with all others, though actually imperative with certain of those. Note the fundamental differences that account for this. Railroads, on the whole, are properties becoming stronger with each decade and are least sensitive to the shocks of adversity. The advancing values of their real estate and the enhancement of the properties through physical development makes for a constant appreciation in assets and greater earning power, generally. For these reasons the security of their bonds becomes more firm in the same ratio. Manufacturing and other industrial plants with greater susceptibility to depression and more rapid depreciation must maintain sinking funds to safeguard their bonds, lest by mismanagement or overzealousness to make dividends at the expense of maintenance, bondholders might find a property thoroughly "skinned" at the maturity of their long-term bonds. With such concerns as mining, lumber, or coal companies, it is manifestly necessary from the very beginning to provide for ultimate redemption of the bonds for other and more obvious reasons than with the industrial plants. By digging so much coal or cutting so much lumber just so much of the security of their bonds is taken away. Here then is a condition where the very assets of the business are disappearing with each succeeding year. Hence, any corporation whose assets are

depleted by the operations of business has practically no choice in the matter; that it operate sinking funds is imperative.

The amounts constituting sinking funds vary greatly, being entirely in conformity with conditions. Except in comparatively few instances no exact sum is set down. Where so, a definite amount per annum may be assigned to this use but indefinite amounts are the effect of such provisions as these; that a certain percentage of gross or net earnings shall be set aside; that so much shall be applied if earned; that all surplus earnings over interest charges shall be put to this use; that a fund may be established if the earnings reach a certain point or are in excess of a prescribed amount. A little different statement of about the same thing occurs where coal and lumber lands, power companies, etc., are involved; for every ton mined, for every thousand feet of lumber cut, for every horse power of energy generated—so many cents must be set aside. Such reference to earnings, of course, is not made in public corporations where revenues come generally from a different source. A measure of calculation may enter there permitting predetermined amounts which cannot be under such uncertain terms as above mentioned. There are, however, many cases, among all kinds of corporations where the sinking fund is made equal to a percentage of the bond issue itself—sometimes it is a graduated percentage varying with the length of time the bonds have to run. In municipalities, often, an appropriation of a certain amount from general funds is applied, or again the fund is annually equivalent to a percentage of the assessed valuation.

While sinking funds of public corporations may

be said to spring from taxation generally, and those of other corporations from earnings, exceptions are found in either case. As applied to our Government and many State bonds, little deviation from the rule is found; but many municipal issues have their special source of revenue creating a sinking fund. Generally these incomes are sufficient in amount and absolutely pledged to be devoted to the particular bonds as they mature. Some funds come from such sources as licenses, railroad franchises, court fees and fines, market rent, while the bonds covering docks, water supply, etc., produce their own income fully providing for their sinking funds and ultimate retirement. When sufficient income obtains from these sources, any burden of direct taxation is, of course, removed. Just so is the necessity of drawing from earnings, strictly speaking, eliminated where such bonds as Land Grant and Collateral Trust are provided with sinking funds. The mortgage for the former provides that funds obtained by sale of the land shall be applied thereto while the latter may be considered generally as producing their own interest from underlying collateral above which all surplus goes toward a sinking fund out of which the trust bonds are redeemed.

Aside from illustrative types such as these, there is generally an alternative in the application of a sinking fund. That is to say, no arbitrary application of the fund is demanded. It may be used to retire bonds of that specific issue under consideration, or, if conditions are unfavorable, invested in other securities. Any sinking fund operation of the United States would always be toward directly retiring the national debt, but the States generally have more or less latitude. Their funds may be put into their own

obligations yet some may purchase United States, city and town obligations for this purpose. New York State sinking funds are practically free to take up any good security since the sole requirement is that they shall be "safely invested." Municipalities guided by charter provisions largely, have varying degrees of freedom. They are restricted to definite types, specifically named issues or again have only standardizing requirements.

In some others than public corporations what is ostensibly a sinking fund may never become such, due to the stipulation that if bonds of the issue itself cannot be bought at a certain price, the money may be applied for other purposes—to dividends in a few instances and to purchasing equipment. Under similar circumstances, the trust deeds of some issues permit investment in securities legal for savings banks. Just here it is well to note an essential difference in the sinking fund operations of various corporations. Those of a public character never *call* their bonds; that is, when sinking fund money is available, no drawing by lot is ever done, thus compelling their release by holders. On the contrary, private corporation bonds are taken up in this manner at a designated figure, often to their detriment in market quotation. Thus it is that when the money funds are turned into investment as a sinking fund, they may operate in either of two ways: one—taking up or retiring a part of the actual bonds of the specific issue; two—purchasing other securities and leaving the entire issue outstanding, but, of course, in this way providing for its ultimate extinction by realizing on them when the proper time comes. Thus if a sinking fund is invested in outside securities, it is calculated

that it must produce by maturity sufficient to retire the whole issue, and with the last payment used to purchase or redeem the actual bonds completely wipe out or retire them. In other words, one method builds up an amount until maturity to pay off the debt; the other takes up the bonds as it goes along. Taking up the bonds as it goes along, however, involves two considerations: whether the bonds shall be held as alive or cancelled immediately. At the present time bonds are cancelled more than otherwise, although the matter is largely of negotiation between the issuing company and its bankers. If the bonds are absolutely retired when taken up by the sinking fund appropriation the liabilities of the company are thereby reduced in that amount; when held alive, the liabilities, of course, remain the same throughout the whole term of the issue and consequently fixed charges represented by their interest remain constant until the end. Cancellation means that interest charges to the amount involved absolutely cease; holding the bonds means that the charges cease so far as the public is concerned but in the accounts of the corporation entries must be made, transferring, as it were, these funds from one pocket to another, where they are put to stay. The desirability of either method must be decided not so much from principle as from conditions. If the bankers require the securities held in force, it is from their analysis of the property and judgment of the future. They may deem it a wise provision to maintain the fund which will absorb the interest money regularly.

The administration of the sinking fund in either case is generally a function of the trustee. The trust company, who is usually the trustee, receives the

amount to appropriate toward the fund, and it, of course, must see that the provisions of the mortgage are complied with. Occasionally the mortgage provides for a sinking fund commission, officers of the company, who administer affairs along the same lines as a trustee. When bonds are to be taken up by the sinking fund notice is put in public print of the numbers, if drawn, and the fact that the interest thereon will cease on the date named, or to the effect that the trustee has at its disposal a specified sum and offers to buy a sufficient amount to exhaust the said sum. This matter of public notice is a practical objection with investors to drawn bonds. Such an advertisement is full legal notice of cessation of interest and is binding. If, then, the holder does not chance to see it immediately, he stands to lose by the oversight.

But the absence of trusteeship in public corporations necessitates a different procedure. The State Treasurer is generally the supervising officer of State sinking fund operations while in municipalities the practice varies. Small ones, of course, do not need and therefore have no elaborate arrangements; but cities, with their large debts, complicated accounts, and multiplied sinking funds must needs have some administrative body for this work. New York City has ten sinking funds, the assets and accounts of each being kept separate and the Board of Commissioners is composed of the Mayor, Comptroller, Chamberlain, President of the Board of Aldermen, and the Chairman of the Finance Committee of that Board. In another city retirement of bonds and payment of interest is entrusted to a Sinking Fund Board of Trustees of four members, appointees of the Mayor. This board fixes the amount of tax levy for the creation of sinking funds and

exercises its discretion in the investment of funds and is given always first opportunity of purchasing new bonds when issued. In Philadelphia the Sinking Fund Commission is the Mayor, Comptroller, and one citizen, reporting to the Council. Yet again we find four appointees of the Mayor, not more than two of whom shall be of the same political party; and in another instance, a "Board of Liquidation of the City Debt," composed of bankers and business men in the majority and several city officials in the minority; a constitutional board free from control of the city authorities. These illustrations are representative of the personnel of sinking fund commissions throughout the land whose duties in some places are explicitly prescribed and in others regulated by the most general provisions.

The sinking fund, as a principle in public and private finance, is not open to attack. Theoretically the method is conceded to be sound but unfortunately for the theory, practice and expediency have left wide open a question of its utility and the wisdom of its establishment. That the extinguishment of most public debt should be provided for by application of funds at regular intervals is generally acknowledged to be correct procedure: but the provocative of controversy is the best method for its accomplishment. So the question in public finance resolves into about this form—is it the sinking fund or some other method that is best, that is, safe and sure? while in private finance the point at issue is whether at all a sinking fund shall be established. In the one it is purely a matter of relative efficiency; in the other largely a question of policy.

Much of the anti-sinking fund argument in public

finance has for its foundation the fact that the operation of such funds has often proved a failure more from the manner of administration than anything else. The inviolability of such funds is not sacred to some, it is argued, the confirmation of which is the experience of some municipalities where the integrity of an accumulating sinking fund has been violated and it has been misappropriated. Dishonesty or incompetency of management are therefore possibilities. However, were it not for the fact that such a fund is seldom placed beyond the control of the debtor, as with a trustee, this objection would be unheard. How great an element of weakness this may be is, of course, problematical. Since public sinking funds are subject to legislation it is further argued that in this situation there is potential danger. It is quite possible that unfriendly or unwise legislation regarding the investment of such funds could seriously affect the efficiency of administration. But both of these objections are based on suppositious conditions. From a fiscal aspect others are raised. One swings about the question of interest. Because of the uncertainty of interest rates obtained, the necessary investment in securities may not produce sufficient to liquidate the loan at maturity. Or, again, there is possibility of an excess of the amount required. Furthermore, a heterogeneous lot of securities is purchased from time to time and at the end of the period this accumulation must be sold to obtain the necessary funds. Conditions at that time may be entirely unfavorable to such an operation and the proceeds of such sale would suffer accordingly. By some, investment in the debtors' own bonds for the sinking fund is held to be worthless from the stand-

point of the creditors' security and indeed in a few instances the right of sale by a city of its bonds to itself for its sinking funds has been denied by the courts. There is a case on record where the court of a Western State ruled against the purchase by a municipality of its own bonds on the ground that it was "inconsistent with the essential character of the sinking fund, and so destructive of the purposes to be conserved by its maintenance that it must be held that the prohibition is implied. To construe the law so as to authorize such a sale would make the sinking fund a debt-creating instead of a debt-paying scheme. It would permit a city to market its bonds to itself, when the credit of the city or the state of the money market might be such that the bonds would not sell outside, which would be a diversion of the sinking fund to the prejudice of the city. It would enable one branch of the city officers to play into the hands of another to create municipal debts."

It is clearly evident that the *pros* and *cons* in discussion of sinking funds in private finance are respectively of an essentially different character. Under the assumption that the property is of permanent value and stable earning power would it not be superfluous in most instances to establish sinking funds? If by doing so, the diversion of money into a sinking fund would be burdensome and in any way tend to hinder the development of the property, then yes. That such a condition is even more than possible may be argued from this standpoint—that a sinking fund cannot be put into the property in the form of improvements, betterments, etc., but must necessarily be invested in securities. So assigned, the money earns much less than when put into the property, and is an

obvious mistake. With this in view and considering the matter from the stockholders' interest it is, of course, desirable to discard the sinking fund method and in preference rely upon refunding to take care of the debt at maturity. But they would not alone be the beneficiaries under such a policy, though their advantage lay in possible larger dividends. Under our premises, development of the property instead of maintaining a sinking fund could not do otherwise than eventually strengthen the security of the bondholders. Increasing safety from this method of procedure would be more desirable than such as would be inherent to the sinking fund. Quoting from a bond circular of a New York banking house, on this point we read, "other circumstances being the same, a sinking fund bond is to be preferred for its security" but, it adds, "if a bond is not well secured without the sinking fund it is generally true that no sinking fund agreement will make it safe."

All considered, the subject of sinking funds invites attention from various directions. It immediately opens up the broad question as to their expediency, (when not positively necessary) a question involving many factors of financial structure and market conditions. It may be approached from the point of view of the bondholders' security, solely, or from the possible advantages or disadvantages accruing to the stockholders and corporation generally.

CHAPTER XXIV.

SERIAL BONDS.

The increasing adoption of the serial method of retiring bonds warrants for it some special consideration. Even stronger claim to special attention arises from the intimate relations of this method, as a fiscal policy, to that just discussed—the sinking fund. A broad study of bonds not only includes the development of these two phases but shows their close association. Precedent to such special consideration, however, a certain distinction deserves emphasis—that between serial bonds and bonds in series. It is obviously true that serial bonds are always bonds in series, but bonds in series are not always serial bonds, so that the common use of these terms—in series and serially—is intended to convey the idea of two entirely unrelated conditions or facts. Many bond issues are put out in series; that is, they are divided into successive parts which may be brought into the market simultaneously, or as is most generally the case, progressively as circumstances dictate or perhaps the terms of the mortgage provide and the needs of the company require. Brought out in this latter manner, the issuance is often spread over five or ten years from the date of the instrument. Under these circumstances each part—a series—receives its distin-

guishing mark such as 1, 2; a, b, etc. As exemplifying this type, we turn to some of the large general mortgage issues of railroads. Authorized for amounts far in excess of the needs at the moment, each succeeding part naturally required some designation for its identity. Furthermore, in some cases, individual series of large issues represent special application of the funds from their sale, thus lending a further facility to matters. Examining other types such as debenture, income, and one or two others, a large reason for dividing the issue into series is perfectly plain. Interest matters here almost necessitate this procedure. Such a division comes about largely that payment may readily be made on part of the issue perchance all series cannot be favored.

Serial bonds are generically different since the term has particular reference to the manner of retirement. The series of an issue generally have a common maturity while the term serial bonds immediately indicates the varying maturities of the parts of an issue. True, the series of an issue may be for progressively shortening periods, but it is due to delayed issuance and not different maturities. Practically its effect is *nil* since most issues so carried out run for many years making the shortest of the series yet a long time bond.

We have seen that a sinking fund may be so operated as to retire portions of a bond issue at regular intervals and by cancellation of the bonds so taken up reduce the total debt by just that amount. This effect is the essence of the plan of bond retirement and payment which we know as serial or partial payment. So far as the end accomplished here is considered, the sinking fund and serial plan are substantially the same. As a matter of fact, many times, the money to

retire the respective series under the latter plan is actually called a sinking fund. But of course the operation of sinking funds is not limited in variety, whereas the serial method is simplicity itself and admits of little innovation. By this method the debt is reduced periodically by payments on account of principal thereby reducing each year the liability and the interest charge. It is simply a matter of sinking the debt by paying it piecemeal.

Inasmuch as most bond issues are designed on different principles than this, it follows that comparatively few (but comparatively only) serial bonds are in the market. Our Government and the states never issue such obligations but among municipalities this mode of financing public debt has been adopted to a considerable degree. Large amounts of assessment bonds for various purposes are serial issues. Other corporations, however, furnish the bulk of this class of bonds. Industrial institutions of many kinds, especially in the western part of the country, are adopting serial bond issues more and more, yet, it must be said, gradually. Of these corporations, the majority are of that type which consumes its assets by its operations, typified by lumbering concerns. In the field of railroad finance but one type of serial bonds is found and that is equipment obligations, some of which are known only as Car Trusts. As representative of their kind, an enumeration of the salient features is in order. The origin of this form of security dates back to 1870 when, to common knowledge, it was the product of necessity. Then the lines were financially weak and in need of much equipment, so the "Car Trust" was conceived. The history of these obligations has justly developed the theory that none but

feeble roads resort to this method to obtain rolling stock but recent events have disproved it measurably, for some of the largest makers of these bonds are the strongest in position, notably the Pennsylvania Railroad which has a number of car and equipment trusts, \$13,000,000 of which was issued during the year 1905. In recent years the practice of issuing these obligations against new equipment has rapidly increased until now the figures stand near \$125,000,000. The method is practically a conditional sale of equipment to the railroad. A certain percentage of the price is paid in cash (of late issues about fifteen per cent.) and the remainder in instalments and represented by a number of series of bonds generally maturing annually, each issue equalling from ten to fifteen per cent. of the total amount, thus bringing the last series to payment in about ten years. The instrument of security for the equipment and car-trust bonds is a lease legally, notwithstanding the fact that the operation is virtually a conditional sale. The reason for this is interesting. It brings to light the perfect security that is sought for these bonds. In many States of the Union the validity of a true conditional sale against third parties or judgment creditors is extremely vulnerable, while a mortgage is often impracticable or impossible because of the automatic "after acquired" clause in an old mortgage extending over property secured in the future. Hence the lease to the company of the new equipment has been the avenue of success.

But as drawn in the earlier days, even the lease was defective. A true lease is not intended to pass ownership, it was held by the courts, but merely to give use of the property for a certain length of time. This

difficulty was therefore surmounted by addition of a further condition—after all instalments of rental were paid, one dollar additional would secure the title. This is, of course, a true lease and was sustained. This lease is always made between the trustee and railroad company, title to the equipment pending completion of payments remaining with the former. Experience has proved that security of this form is almost perfect: all through the receiverships of the 90's the receivers paid car trusts regularly when interest on first mortgage bonds had gone by the board. There seems never to have been a default on a car trust in the country, much of the strength of their position lying in the fact that the equipment is the railroad; without it, of course, the roadbed is useless. Equipment being necessary for the operation of the railroad, the courts have held that expenses incident to car-trust bonds or certificates, as they are often called, are prior and therefore holders have always fared well.

In consideration of serial bonds generally, advantages and disadvantages may be seen accordingly as viewed from the point of the corporation, banker, or investor. An endless controversy wages about the superiority of this method over the sinking fund for use by municipal corporations. Eminent financiers and lawyers have written, advancing arguments that serial bonds prove a saving over straight bonds; that this method is more economical and its benefits accrue to the taxpayers; that the difference in interest and in cost on long-time bonds between the two fiscal methods is very great where large amounts are involved; that the serial method works automatically, without any lapse or loss of time for investment; that there is no sinking fund nor any need of one; that there

can be no mismanagement or dishonesty; that the sinking fund method in many cases is a "financial anachronism"—out of date, unreliable, too costly, and to be discarded in advanced municipal finance. On the other hand objections to the serial bond method are advanced; that they are not popular; must generally bear a high rate of interest and sell at a lower premium than long-term bonds issued under the sinking fund plan. The measure of application of these statements depends wholly upon the specific instance under consideration. So many elements are involved varying with time and place, that no sweeping condemnation or commendation can be wisely made. Each method has its merits and demerits; neither is wholly bad nor yet the best under all circumstances. All of these statements do not hold true in all cases though many do in some. This much may be said—serial bonds have come and to stay but as yet their propaganda has not convinced public authorities to a point anywhere near universal adoption.

With others than public corporations, a forceful objection to serial bonds is the burden imposed on Income Account. The equipment trusts of railroads cannot be considered as funded debt but are really a deferred liability against this account. Properly followed out and paid out of income every year, it is just as much a direct charge out of the revenues as it would be if the whole sum were taken out of one year's account and invested in equipment. The issuing company simply pays interest and borrows the money intending to make it good out of current revenues as time goes on. The fact is, too, that they carry a generally higher rate, or, at any rate, sell to a higher yield than ordinary bonds, a condition, of course,

contributing to the investors' gain. Notwithstanding this higher return, the measure of unpopularity, in the broadest interpretation of that word, ascribed to municipal serials, exists about these railroad bonds. The outside public does not, as a rule, participate in their purchase. They are generally taken by banks, insurance companies, and other investment institutions who recognize their advantages for scientific investment of reserves. The different maturities are bought in much the same way that a dealer in commercial paper buys the thirty- and sixty-day paper of well-known merchants. An obviously desirable feature this, the shorter and longer maturities for that class of investors, it is practically the salient point of unattractiveness to the individual buyer from whatever corporation the bonds come. As to security, municipal serials, of course, share with their companion issues but with equipment bonds and the like it approaches perfection. The theory is that as the latter series are approached, safety increases proportionately. There is the deed of trust under which the property must be kept in proper order and complete repair; replacements made of that worn out, lost, or destroyed; full insurance carried and other provisions for protection, so that depreciation is far slower than payment of the series. But as we have seen, a prime qualification of bonds is long maturity, which immediately disqualifies short serial issues from fullest favor. Investors, for one thing, are not partial to payments of commissions incident to frequent reinvesting. Naturally, bankers are not averse to this aspect of the matter, and so where once there was disinclination to handle this type of bond there is now as much disposition to stimulate popular interest by literature on the subject.

CHAPTER XXV.

BALANCE SHEET.

ONCE in a year the operations of many corporations are brought to focus in an annual report, a compilation of statistics with some explanatory text showing the condition of the corporation at a certain date and covering the conduct of business for the twelvemonth period preceding. It is a statement of affairs, rendered by the directors to the stockholders and supposed to clearly set forth the company's position. A periodical accounting of this character to the owners of the business seems only natural, yet it is not universally done. It is true those that do make reports far outnumber the others, nevertheless, industrial concerns as a class have not fallen into this custom. Only a few make a fair report—the others none.

Railroads, every one, present some kind of information to their stockholders but manufacturing companies evade the issue or refuse absolutely. In justification for this course it is argued that reports disclose the inner secrets, and give a basis for competitors to form judgments and make plans. Plausible as this reasoning appears, it is not at all convincing. The stockholder has a right to know the condition of his corporation and ought to be furnished with a good report. Railroads, of course, cannot plead this excuse,

hence they issue annual reports more or less comprehensive. The majority, it must be said, are good though in some quarters there is a noticeable tendency toward brevity. Particularly is this the case with the properties largely controlled by a certain well-known individual in the railroad world. It is said this is but carrying out a policy begun years ago when he said, henceforth increasingly less information about his lines would be made public in this manner. A contrast to this is furnished in such reports as those of the Southern Pacific Company and the Pennsylvania Railroad. Few railroad reports, however, are as meagre in information as those obtainable of industrials.

Whatever the degree of clearness and amount of information contained in railroad reports, there is ever somewhat of uniformity due largely to the character of the business. In the end, of course, they are made up according to the best judgment of the officers. If the policy of uniform accounting throughout the country shall ever prevail even more similarity will result. So far as reports to the Interstate Commerce Commission go, they must be identical, but to the stockholders there is room for diversity.

Every well-prepared annual report resolves into three parts. The first is an analysis of the property from a physical point of view, presenting for a railroad every detail of trackage embraced, equipment owned, and facilities enjoyed, together with complete traffic statistics, freight and passenger. It is needless to show here what constitutes each of these as reports are easily procured and may be studied with greater profit. Next come figures showing earning abilities. All this is included in the Income Account. Revenues, of course, are derived from many sources and are likewise ex-

pended in as many ways but the import of it all is to show gross amounts from and for operation, net, other and total income, fixed charges, balance, dividends, and surplus.

But the information is yet insufficient to show the standing of the company. It may now appear how good or bad the property is yet nothing of its financial position has been disclosed. The Income Account tells what happened last year but no more. It is, therefore, necessary to put the results already known with facts still untold and of it all make one complete picture. This is accomplished in the Balance Sheet. A Balance Sheet, it should be remembered is not intended to show anything for any definite period of time; what it seeks to make clear is how affairs are at a certain date. Hence it is made up of two columns, Debit and Credit. On the Debit side are the Assets, Capital and Current—on the other all Liabilities, Capital and Current. Capital assets are generally represented by items of road and equipment, Securities owned—that is stocks and bonds of railroads and other corporations, and also Sinking Funds. Under Capital Liabilities are found all bond obligations and stock outstanding. Current Assets cover such items as Cash, Bills, and Accounts Receivable, due from agents, other companies, etc., while Current Liabilities show Loans, Bills, and Accounts Payable, due to other companies, wages due, and other sundry liabilities.

In the presentation of a Balance Sheet there must necessarily be compression of multitudinous items into small space yet it is possible to make it too condensed—indeed to the extent of obscurity. That there may be no misuse of an account, all charges of the year should be fully itemized and in the matter of Invest-

ments, information should be so clearly set forth that a judgment as to the correctness of their valuation may be quickly made. Unfortunately many railroad reports are not as explicit on this latter point as could be hoped for. In fact one of the largest systems of the eastern part of the country was severely criticized for the faultiness of its last Balance Sheet. No explanation was given regarding such items as "Securities owned," "Advances for leased lines," and "Loaned and Bills Receivable." The question was then raised how should these items be reported. There can be no reasonable objection to a condensed sheet of each important item but if it is to be condensed to the last degree, at some other place in the report details of each account should be found.

Critical analysis of the balance sheets of our railroads when fully illumined by statistical tables and text is in itself a heavy labor. How much increased then is the difficulty of a clear understanding when omissions like these occur. The express object of making a balance sheet is to present a reliable and complete financial statement to shareholders. They fall short therefore just to the extent that such vital items as mentioned are offered without explanation or remark. But the bondholder or creditor as well as the stockholder has use for this statement, for largely from its contents is the worth or worthlessness of the corporation's bonds determined. Hence the wise investor makes some investigations on his own account, for though not highly versed in bookkeeping, he may yet discover much for himself.

The statements for a single year, however, are not always sufficient for this purpose. Manipulation of traffic statements, for instance, is always possible and

might not be clearly apparent. The balance sheet standing alone, might not seem to evidence an indifference of the management toward shareholders or conceal anything, yet such conditions could exist. In other words, isolated statements are of comparatively little consequence to the investor. It is only by examination of a series and their comparison that substantial conclusions may be arrived at. One year's results are no criterion of others. Even the ratio between figures of two years are yet unsafe for final judgment. So it is imperative that the tables throughout a report be matched for a number of years; that the income account be treated likewise, watching the fluctuations in each item or earnings and that the balance sheet be closely scrutinized, compared, and sifted for discovery of changed conditions not mentioned elsewhere. In a word the balance sheet should be a reliable and complete financial statement, but in any event may be a light unto the path of an investor. Beginning with its gross amounts an examination ramifies into the smallest detail, comprehending every phase of the business.

INDEX

Q

R

S

T

U

V

Y